S. HRG. 102-5 (PT. 7)

NATIONAL ENERGY SECURITY ACT OF 1991
(Titles VII and VIII)

HEARING

BEFORE THE

COMMITTEE ON ENERGY AND NATURAL RESOURCES UNITED STATES SENATE

ONE HUNDRED SECOND CONGRESS

FIRST SESSION

ON

S. 341

TO REDUCE THE NATION'S DEPENDENCE ON IMPORTED OIL, TO PROVIDE FOR THE ENERGY SECURITY OF THE NATION AND FOR OTHER PURPOSES

MARCH 11, 1991

PART 7

Printed for the use of the Committee on Energy and Natural Resources

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NATIONAL ENERGY SECURITY ACT OF 1991, TITLES VII AND VIII

MONDAY, MARCH 11, 1991

U.S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, DC.

The committee met, pursuant to notice, at 2:05 p.m., in room 366, Dirksen Senate Office Building, Hon. J. Bennett Johnston, chairman, presiding.

OPENING STATEMENT OF HON. J. BENNETT JOHNSTON, U.S. SENATOR FROM LOUISIANA

The CHAIRMAN. The hearing will come to order. Today the committee will receive testimony on two titles of S. 341, The National Energy Security Act of 1991. Title VII would require importers of petroleum products to pay an oil security premium in the form of a percentage of the imported product. Title VIII addresses issues relating to the oil and gas development on the Outer Continental Shelf.

Protection of the Nation's energy security is a costly undertaking. There are many factors that led the United States to spearhead the war against Iraq. One very important crucial factor was energy security. The costs of energy security are immeasurable when they involve the lives of military personnel. These costs are also measured in billions of dollars when one considers the financial costs of the Nation's military presence in the Persian Gulf.

In 1988, a full 2 years before the invasion of Kuwait, the National Defense Council Foundation conducted a study of oil related defense spending in the Gulf during peacetime. They estimated the cost at about $14 billion annually. That comes to about $20 per barrel of oil from Arab OPEC Nations at today's import level. Energy security costs also include money invested in the Strategic Petroleum Reserve which amounts to over $19 billion to date.

The billions of dollars spent on the SPR, and on protecting the Gulf, represent a form of insurance premium against oil supply disruptions, an oil security premium. The high level of U.S. oil imports causes the Nation to pay this oil security premium, a premium that is currently borne by the public in general. Oil importers should help pay this premium, and that is precisely the intent of this bill.

The second matter that we will hear about today, involves the development of the substantial oil and gas resources of the Outer Continental Shelf. Unfortunately controversy has plagued the OCS

leasing program. Those of us who believe that environmentally sound OCS development is vital to our national interest were disappointed when President Bush announced last summer his decision to place large portions of the OCS off-limits to development until after the year 2000.

Congress has also repeatedly enacted extensive moratoria, and we made the decision this year not to include any legislation that would upset that moratoria. And frankly, it is not my view that we should try to do that because we are not going to be able to. And we might as well just put that off limits, as far as I am concerned.

I want to be clear about what S. 341 does not do. First, it does not attempt in any way to overturn any moratoria. That is a fight that has been fought before and may or may not be fought again elsewhere, but surely this was not the place to do it. This legislation does contain an important initiative that would provide local impact assistance to coastal States and communities affected by OCS development. President Bush endorsed that concept last summer when he announced his decision on OCS development. Both of the subjects that will be addressed today, the oil security premium and the OCS, have important implications for our National energy security.

[The prepared statement of Senator Johnston and the texts of titles VII and VIII of S. 341 follow:]

STATEMENT OF SENATOR JOHNSTON
HEARING ON S. 341
TITLES VII (Strategic Petroleum Reserve)
AND
TITLES VIII (Outer Continental Shelf)
March 11, 1991

Today the Committee will receive testimony on two titles of S. 341, the National Energy Security Act of 1991. Title VII would require importers of petroleum products to pay an oil security premium in the form of a percentage of the imported product. Title VIII addresses issues relating to oil and gas development on the Outer Continental Shelf.

OIL SECURITY PREMIUM

Protection of the nation's energy security is a costly undertaking. There were many factors that led the U.S. to spearhead the war against Iraq. One very important factor was energy security. The costs of energy security are immeasurable when they involve the lives of military personnel. These costs are also measured in the billions of dollars when one considers the financial costs of the nation's military presence in the Persian Gulf. One study by the National Defense Council Foundation of oil-related defense spending in the Gulf during peace time put the cost at about $14 billion annually (nearly $20 per barrel of oil from Arab OPEC members). Energy security costs also include the money invested in the Strategic Petroleum Reserve (over $19 billion to date). The billions of dollars spent on the SPR and on protecting the Gulf represent a form of

insurance premium against oil supply disruptions -- an oil security premium.

The high level of U.S. oil imports causes the nation to pay this oil security premium -- a premium that is currently borne by the public in general. Oil importers should help pay this premium, and that is precisely the intent of Title VII of S. 341.

Under this provision, beginning in FY 1992, DOE must implement a program for: 1) filling the Strategic Petroleum Reserve at 220,000 barrels per day; and 2) meeting the petroleum product needs of the Department of Defense (DOD). Oil importers would be required to provide petroleum products for these purposes in an amount equal to a percentage of their total imports as determined by the Secretary of Energy.

Current law requires the Department of Energy (DOE) to plan for an SPR of 1 billion barrels. There are roughly 570 million barrels in storage today. Fill of the Reserve was suspended in August 1990. The Administration proposes to resume SPR fill in the last half of 1992 at a rate of up to 50,000 barrels per day with oil acquired by lease or other suitable alternative. At this rate, it would take over 20 years to reach 1 billion barrels.

Title VII would mandate a minimum fill rate of 220,000 barrels per day and require oil importers to provide the oil. Fill rates during the the first half of the 1980's ranged from of 160,000 to 290,000 barrels per day. The Energy Policy and Conservation Act (which governs the SPR) still contains a fill

rate goal of 220,000 barrels per day (see Sec. 160(c)). At this rate, the 1 billion barrel target could be reached in about 5 years (though the lead time on expanding storage capacity may affect how fast it can be filled). Title VII would not preclude a higher fill rate through purchase or leasing.

DOD uses about 500,000 barrels per day of petroleum product during peace time. Over 3/4 of this is jet fuel and about 15% is diesel fuel. Title VII aims to provide for these needs as well by requiring oil importers to provide petroleum products to DOD.

If enacted today, Title VII would require oil importers to provide a total of about 720,000 barrels per day of petroleum product. This would represent about 9% of the 8 million barrels per day currently imported. Thus, DOE would set the required percentage at 9%. At $20 per barrel, the value of the petroleum provided would be roughly $5 billion annually.

Title VII seeks to avoid disrupting normal patterns in the transportation of petroleum. It would be wasteful and inefficient for each oil importer to deliver petroleum to DOE or DOD in the course of every shipment to the U.S. The intent is that DOE would create an accounting system to track the fair market value of importers' required contributions. Importers would receive credits and debits to their account for petroleum provided or received, or for funds exchanged among firms (e.g., an importer would gain credits to its account by providing jet fuel directly to DOD, or by providing equivalent funds to a

supplier of jet fuel to DOD). The system would be as flexible as possible and would seek to minimize the costs of compliance.

Section 181(c) allows DOE to modify the required percentage (including a reduction to zero):

(1) to reflect changes in DOD petroleum consumption;

(2) to reflect changes in oil import levels;

(3) if DOD or DOE is unable to take delivery;

(4) if fill of the SPR is suspended; or

(5) if the SPR reaches 1 billion barrels.

OUTER CONTINENTAL SHELF

The Outer Continental Shelf contains very significant domestic oil and gas resources. Approximately one-fourth of all domestic estimated oil and gas reserves are on the OCS. During 1989, OCS oil and gas production was 3.4 million barrels per day (barrel equivalent).

Unfortunately, controversy has plagued the OCS leasing program. Those of us who believe that environmentally sound OCS development is vital to our national interest were disappointed when President Bush announced last summer his decision to place large portions of the OCS off-limits to development until after the year 2000. Congress also has repeatedly enacted extensive moratoria.

I want to be clear about what S. 341 does and does not do. First, it does not attempt to overturn any moratoria. That is a fight that has been fought before and probably will be fought again elsewhere. This is not the place to do it.

This legislation does contain an important initiative that would provide local impact assistance to coastal states and communities affected by OCS development. President Bush endorsed that concept last summer when he announced his decision on OCS development.

Both of the subjects that will be addressed today -- the oil security premium and OCS -- have important implications for our national energy security. I thank the witnesses for being here and look forward to their testimony.

II

102D CONGRESS
1ST SESSION

S. 341

To reduce the Nation's dependence on imported oil, to provide for the energy security of the Nation and for other purposes.

IN THE SENATE OF THE UNITED STATES

FEBRUARY 5 (legislative day, JANUARY 3), 1991

Mr. JOHNSTON (for himself and Mr. WALLOP) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

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A BILL

To reduce the Nation's dependence on imported oil, to provide for the energy security of the Nation and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

That this Act may be referred to as the "National Energy Security Act of 1991".

* * * * * * *

TITLE VII—STRATEGIC PETROLEUM RESERVE

SEC. 7001. OIL SECURITY PREMIUM.—(a) Title I of the Energy Policy and Conservation Act (42 U.S.C. 6201) is amended—

(1) in section 152, by striking "and Part C" and inserting in lieu thereof ", Part C, and Part D" in the material preceding paragraph (1);

(2) by redesignating part D as part E;

(3) by redesignating section 181 as section 191; and

(4) by adding the following new part after part C:

"PART D—OIL SECURITY PREMIUM

"PROGRAM GOALS

"SEC. 181. The Secretary of Energy shall establish and implement a program for ensuring that crude oil in storage in the Strategic Petroleum Reserve will be increased at an average rate of at least two hundred and twenty thousand barrels per day, and for meeting the petroleum product needs of the Department of Defense by requiring importers to provide petroleum product for such purposes.

"PERCENTAGE DETERMINATIONS

"SEC. 182. (a) The Secretary shall estimate, for each fiscal year—

"(1) the average consumption in barrels per day of petroleum product by the Department of Defense; and

"(2) the average imports of petroleum product in barrels per day into the United States.

"(b) The Secretary shall add the quantity estimated in subsection (a)(1) to a fill rate of two hundred and twenty thousand barrels per day for the Reserve.

"(c)(1) The Secretary shall determine for each fiscal year the percentage that the sum calculated pursuant to subsection (b) represents of the average imports of petroleum product estimated pursuant to subsection (a)(2).

"(2) The Secretary shall have discretion to modify the percentage determined pursuant to this subsection during the course of any fiscal year—

"(A) to reflect changes in the average consumption in barrels per day of petroleum product by the Department of Defense;

"(B) to reflect changes in the average imports of petroleum product in barrels per day into the United States;

"(C) if the Department of Defense is unable to take delivery of petroleum product provided pursuant to this part due to lack of storage capacity or related facilities;

"(D) to reflect any suspension of fill operations pursuant to subsection 159(e) of the Energy Policy and Conservation Act (42 U.S.C. 6240);

"(E) if the Secretary is unable to take delivery of petroleum product provided pursuant to this part due to lack of Reserve storage capacity or related facilities; or

"(F) if the provision of two hundred and twenty thousand barrels per day of petroleum product for the Reserve in any fiscal year would lead to an aggregate of more than one billion barrels of petroleum product in the Reserve.

"PROVISION OF PETROLEUM PRODUCT

"SEC. 183. (a) The Secretary shall provide, through regulations or orders issued under this part, that each importer (as defined in section 152(2)) shall provide to the United States at no cost in each fiscal year petroleum product in an amount equal to the percentage determined in section 182(c) of the amount of petroleum product—

"(1) which is entered into the United States during any such fiscal year for consumption, use, or warehousing; and

"(2) which is owned by such importer at the first place of storage in the United States.

"(b) Through regulations or orders issued under this part, the Secretary shall reduce the amount of petroleum product deemed to be owned by an importer for purposes of subsection (a) by an amount equal to the amount of petroleum product which is entered into the United States for consumption, use, or warehousing and which is owned by such importer at the first place of storage in the United States and then is refined into another petroleum product and exported from the United States.

"(c) Through regulations or orders issued under this part, the Secretary shall require—

"(1) that petroleum product provided for the Reserve by an importer pursuant to this part be crude oil or other designated petroleum product for which there are authorized storage facilities;

"(2) that petroleum product provided for the Department of Defense by an importer pursuant to this part be designated petroleum product that meets the needs and specifications of the Department of Defense; and

"(3) that petroleum product provided by an importer pursuant to this part be delivered to designated locations at designated times, and be equivalent in fair

market value to the amount of petroleum product otherwise required to be provided by such importer pursuant to subsection (b).

"(d) For purposes of this section, the Secretary shall determine the fair market value of the amount of petroleum product otherwise required of any importer pursuant to subsection (b) at the locations and times that such importer entered petroleum product into the United States for consumption, use, or warehousing.

"EFFECTIVE DATE

"SEC. 184. The provisions of this part shall take effect beginning in fiscal year 1992.".

(b) The table of contents of the Energy Policy and Conservation Act is amended—

(1) by inserting at the end of the items for part C of title I the following items:

"PART D—PETROLEUM PRODUCT PROVIDED BY IMPORTERS TO THE SPR AND THE DEPARTMENT OF DEFENSE

"Sec. 181. Program Goals.
"Sec. 182. Percentage Determinations.
"Sec. 183. Provision of Petroleum Product.
"Sec. 184. Effective Date.";

(2) by redesignating Part D in the items for title I as Part E; and

(3) by redesignating the item for section 181 as the item for section 191.

TITLE VIII—OUTER CONTINENTAL SHELF

SEC. 8001. COASTAL STATE AND COMMUNITY OUTER CONTINENTAL SHELF IMPACT ASSISTANCE.—The Outer Continental Shelf Lands Act (43 U.S.C. 1331 et seq.) is amended by adding a new title V as follows:

"SECTION 1. SHORT TITLE.

"This title may be cited as the 'Coastal State and Community Outer Continental Shelf Impact Assistance Act'.

"SEC. 2. DEFINITIONS.

"For purposes of this title the term—

"(1) 'coastal State' means any State of the United States bordering on the Atlantic Ocean, the Pacific Ocean, the Arctic Ocean, or the Gulf of Mexico;

"(2) 'coast line' has the meaning given such term under the Submerged Lands Act (43 U.S.C. 1301 et seq.);

"(3) 'Secretary' means the Secretary of the Interior; and

"(4) 'new revenues' means:

"(A) all bonuses paid as a result of lease sales conducted pursuant to the Outer Continental Shelf Lands Act on or after February 5, 1991;

"(B) all rents and other moneys payable to the Secretary on or after February 5, 1991, relat-

ed to a lease issued pursuant to the Outer Continental Shelf Lands Act; and

"(C) all royalties attributable to a well or mining operation from which production commenced on or after February 5, 1991, and payable to the Secretary under the Outer Continental Shelf Lands Act;

plus interest thereon.

"SEC. 3. COASTAL STATE AND COMMUNITY OUTER CONTINENTAL SHELF IMPACT ASSISTANCE FUND.

"(a) ESTABLISHMENT.—There is established an interest bearing account in the Treasury of the United States to be known as the Coastal State and Community Outer Continental Shelf Impact Assistance Fund (hereinafter in this Act referred to as 'the Fund').

"(b) PAYMENTS TO FUND.—Beginning in fiscal year 1992, the Secretary shall pay into the Fund not later than sixty days after the end of the preceding fiscal year, an amount equal to 37.5 per centum of all new revenues, as defined herein, derived during the preceding fiscal year which are attributable to an Outer Continental Shelf lease any part of which is within two hundred geographical miles of the coast line.

"SEC. 4. DISPOSITION OF FUND.

"(a) STATE IMPACT ASSISTANCE.—(1) Six months after the end of fiscal year 1991, and annually thereafter, the Secretary shall transmit to the coastal State the revenues payable to such coastal State pursuant to this title, plus interest thereon.

"(2) The amounts to be paid to coastal States under this subsection shall be, with respect to any such State for any fiscal year, the sum of the amounts calculated, with respect to such State, pursuant to subparagraphs (A), (B), and (C):

"(A) An amount which bears, to one-half of the amount available in the Fund for such fiscal year, the same ratio that the amount of Outer Continental Shelf acreage which is adjacent to such State and which is newly leased by the Federal Government in the immediately preceding fiscal year bears to the total amount of Outer Continental Shelf acreage which is newly leased by the Federal Government in such preceding year.

"(B) An amount which bears, to one-quarter of the amount available in the Fund for such fiscal year, the same ratio that the volume of oil and natural gas produced in the immediately preceding fiscal year from the Outer Continental Shelf acreage which is adjacent to such State and which is leased by the Federal Government bears to the total volume of oil and natural

gas produced in such year from all of the Outer Continental Shelf acreage which is leased by the Federal Government.

"(C) An amount which bears, to one-quarter of the amount available in the Fund for such fiscal year, the same ratio that the volume of oil and natural gas produced from Outer Continental Shelf acreage leased by the Federal Government which is first landed in such State in the immediately preceding fiscal year bears to the total volume of oil and natural gas produced from all Outer Continental Shelf acreage leased by the Federal Government which is first landed in all of the coastal States in such year.

"(3) For purposes of making calculations under paragraph (2), Outer Continental Shelf acreage is adjacent to a particular coastal State if such acreage lies on that State's side of the extended lateral seaward boundaries of such State. The extended lateral seaward boundaries of a coastal State shall be determined as follows:

"(A) If lateral seaward boundaries have been clearly defined or fixed by an interstate compact, agreement, or judicial decision (if entered into, agreed to, or issued before the date of the enactment of this paragraph), such boundaries shall be extended on the

basis of the principles of delimitation used to so define or fix them in such compact, agreement, or decision.

"(B) If no lateral seaward boundaries, or any portion thereof, have been clearly defined or fixed by an interstate compact, agreement, or judicial decision, lateral seaward boundaries shall be determined according to the applicable principles of law, including the principles of the Convention on the Territorial Sea and the Contiguous Zone, and extended on the basis of such principles.

"(C) If, after the date of enactment of this paragraph, two or more coastal States enter into or amend an interstate compact or agreement in order to clearly define or fix lateral seaward boundaries, such boundaries shall thereafter be extended on the basis of the principles of delimitation used to so define or fix them in such compact or agreement.

"(b) COUNTY AND COMMUNITY IMPACT ASSISTANCE.—The revenues paid by the Secretary to a coastal State under subsection (a) shall be used by such State and its subdivisions, as the legislature of the State may direct, giving priority to those subdivisions of the State socially or economically impacted by development of minerals on the Outer Continental Shelf, for (i) planning, (ii) construction and maintenance of public facilities, and (iii) provision of public services.

"SEC. 5. RELATIONSHIP TO OTHER LAW.

"The payment of funds pursuant to this title shall be in addition to any payments made to a State under any other provision of this Act or any other provision of law.".

SEC. 8002. REPORT ON THE AVAILABILITY OF THE OUTER CONTINENTAL SHELF FOR LEASING.—(a) REPORT TO CONGRESS.—Within six months after the date of enactment of this Act, the President shall submit a report to the Committee on Interior and Insular Affairs of the United States House of Representatives and the Committee on Energy and Natural Resources of the United States Senate containing the President's recommendations and findings regarding the availability of areas of the Outer Continental Shelf for oil and gas leasing, development and production.

(b) REPORT CONTENTS.—Such report shall contain but not be limited to the following findings and information:

(1) oil and gas production potential on the Outer Continental Shelf by region;

(2) historical data regarding oil and gas production on the Outer Continental Shelf by region;

(3) the extent to which production from areas of the Outer Continental Shelf currently under moratoria as a result of the decision of the President announced June 26, 1990 would reduce United States dependence on oil from the Middle East and on oil produced by

members of the Organization of Petroleum Exporting Countries;

(4) a comparison by Outer Continental Shelf region and on a national basis of the number of oil spills and amount of spilled oil resulting from Outer Continental Shelf production and the number of oil spills and amount of spilled oil caused by vessels transporting imported oil to the United States;

(5) an estimate by region and on a national basis of the net change in the oil spill risk as imports of oil decrease in response to production from new leases on the Outer Continental Shelf;

(6) at least one proposal for an alternative to the current OCS process that would provide for a staged requirement for environmental information and public comment thereon at critical points in the leasing process and during the post-leasing exploration and development phases. Any such proposal shall assume that a potential lessee will be offered full rights to exploration and development at the time of lease sale subject to cancellation. Any proposal under this paragraph shall specify the criteria to be used for cancellation based on environmental considerations;

(7) an analysis of the compensation criteria for OCS lease cancellation under current law, recommend-

ed changes thereto, and recommendations for any changes in such compensation under any proposal under paragraph (6); and

(8) identification of gas prone areas under administrative or legislative moratoria.

* * * * * * *

The CHAIRMAN. We are delighted to have our distinguished Senator here to testify. I would first like to hear from the distinguished ranking minority member of this committee, Senator Wallop.

STATEMENT OF HON. MALCOLM WALLOP, U.S. SENATOR FROM WYOMING

Senator WALLOP. Mr. Chairman, thank you. And I have a statement which I would wish to have placed in the record.

The CHAIRMAN. Without objection.

Senator WALLOP. I just would make a couple of observations. It is time we did something about the OCS accessibility. It is time that we stopped *ad hoc* moratoria that simply places OCS areas into moratoria without any hearing process or otherwise.

With regards to our provision which would require oil importers to contribute a portion of what they import to the Strategic Petroleum Reserve, I think it is fair to observe that this is not going to be paid for by the importers; it is going to be paid for by the consumers of the energy resource that the importers bring in. There is no way ultimately to step around a tax, whether it is "in kind" or otherwise. It comes out ultimately in the price that consumers pay.

But the other side of this is that I am frustrated, as I know you are, with the inability of this and the proceeding administration, or any of those who oppose taxes, to come up with some means by which some stability can be created in the domestic oil and gas industry from the basis of price. It is not hard to imagine what took place when the decontrol brought the price of oil down to below $10 for a little while.

In part, at least, the incredible savings and loan problem the Nation faces today can be laid at the feet of a collapsed oil industry. Much of the real estate base that was, and is now, the problem with the savings and loan industry was a result of a collapse of the general economy in several States, Mr. Chairman, yours and mine included, and Texas, and California, and others.

So, I understand the administration's opposition to it. It is not entirely unexpected and I would say that it is not at least wise to characterize it as adding to the cost to the consumer. Surely, the American taxpayer pays a hell of a price for allowing the loss of hundreds of jobs in the oil and gas industry and allowing the collapse of the capitalization that took place there. So it is my hope that if we have done nothing else, we will stimulate some conversation as to how those who would invest in, or those who would loan to, the oil and gas industry can have some basis of security other than the lowest price to which oil has fallen over the last decade, and that is the basis of what we tried to do with this provision.

I think we both were sanguine about its prospects and about the reaction to it, but neither of us has given up on the idea that somewhere out there, there lies an answer to this lack of priceability

I thank you.

[The prepared statement of Senator Wallop follows:]

Statement of
Senator Malcolm Wallop (R-WY)
Ranking Minority Member
Senate Committee on Energy and Natural Resources
March 12, 1991 (2:00 p.m.)

Strategic Petroleum Reserve
and
Outer Continental Shelf
Provisions of the
Energy Security Act of 1991

Good afternoon. This hearing deals with both the Strategic Petroleum Reserve and the Outer Continental Shelf provisions of S. 341 and S. 570.

Let me first address the Strategic Petroleum Reserve provisions of S. 341. I strongly believe that our national energy strategy must reflect consideration of all the costs associated with the Western world's continuing dependence on the Persian Gulf for oil. Our national energy strategy should include consideration of the financial consequences of a loss of American jobs, the inflation that results from growing balance of payment deficits, and the military costs in both lives and money.

Our objective should be to provide sufficient flexibility for all domestic energy supply and demand alternatives to compete in the marketplace against the full costs associated with our dependence on imported oil. I make this statement with full recognition that many of today's energy problems stem from reliance on an international market-place where energy

prices have no relationship to either these full costs or the costs of production.

The measures before this Committee, S. 341 and S. 570, contain a number of energy supply and energy efficiency initiatives. Most of these provisions are needed, but they are not sufficient.

From my standpoint, the biggest challenge is whether America's abundant wealth of energy resources can be brought to the marketplace as a source for new businesses and jobs. The United States must find the means to stimulate development of competitive supplies by assuring sufficient stability in domestic energy prices that investments can be made in the development of domestic alternatives.

One means under consideration by the Congress is the establishment of a domestic floor price that stimulates new oil and gas production within the United States. With this objective in mind, S. 341 contains a provision which would establish a price differential between domestic and imported crude oil and petroleum products. This is accomplished by requiring that approximately 9 percent of crude oil and petroleum product imports, or the equivalent, be furnished to the Federal government for use in both filling the Strategic Petroleum Reserve and meeting the fuel requirements of the Department of Defense.

However, the issue before the Committee is whether a means can be found to provide stable domestic oil prices -- not the specific proposal in S. 341. Our current oil prices are not determined by a "free-market"; they are set by an international cartel which is not interested in setting prices at a level that stimulates new energy supplies in competition with their own supplies.

The propensity of American consumers to complain about the energy prices that are necessary to support the life-style to which they have become accustomed is not sufficient reason for us to abandon efforts to find the means to provide a greater portion of those energy needs from domestic sources.

Whatever the outcome of this debate, we must remember that the Strategic Petroleum Reserve has fully demonstrated its worth over the last few months. The Reserve currently contains about 570 million barrels of crude oil, out of an authorized 1 billion. The means must be found for early completion of the effort to reach the 1 billion barrel level. This task can be completed within 5 years with the fill rate goal of 220,000 barrels per day in current law.

With the outbreak of war in the Middle-east, filling of the SPR was suspended, and the Administration does not propose to resume fill until the

last half of 1992. When fill is resumed the proposed fill rate is only 50,000 barrels per day. At that rate it will take over 20 years to complete the task. Such a delay would be unacceptable.

Oil should be leased for storage in the SPR under the authority enacted by the Congress only last fall. The funds available from SPR drawdown during our recent crisis, along with outstanding balances in the petroleum acquisition account, should be obligated as soon as possible before international oil prices rise once again.

Let me briefly address the Outer Continental Shelf provisions of the measures before us. With today's technologies it is possible to develop and produce the oil and gas on our nation's Outer Continental Shelf without risk or damage to the environment. Therefore, it is unbelievable to me that we continue to deny the American people the wealth of natural gas and oil on the OCS. The measures before us do little if anything to correct this situation which significantly contributes to our continuing dependence on the Middle-east with its recent cost in American lives.

I look forward to hearing from today's witnesses in this regard.

The CHAIRMAN. Senator Wellstone.

Senator WELLSTONE. Mr. Chairman, I have no opening statement. I will just wait for questions.

The CHAIRMAN. Senator Nickles.

STATEMENT OF HON. DON NICKLES, U.S. SENATOR FROM OKLAHOMA

Senator NICKLES. Mr. Chairman, I have a statement I will ask to be inserted in the record and will make the following comments.

One, concerning the approach that you had, the Oil Security Premium, I like the title but I do not know that I like the methodology. I personally have introduced and would refer you to what I would call a minimum floor price, with a variable import fee to give us some stability, as Senator Wallop had mentioned. The instability of oil prices is certainly not due strictly to market forces by willing buyers and sellers. I think in many cases we have seen governments intervene in oil pricing and intervene in a very manipulative way, in a way that has caused oil prices to fluctuate with considerable variance, and in many cases, with disastrous results.

I think back at the precipitous price declines that we saw in 1986 where you actually saw oil prices decline below $10. While there might be some euphoria around part of the country for that very low oil price, the net result was we saw a lot of domestic producers go out of business. I do not think that was healthy for consumers in any part of the country. As a result of that, we saw a lot of wells, thousands of wells, prematurely abandoned, and that oil production lost forever.

And so, Mr. Chairman, while I applaud your desire and maybe the interest that you have, I would hope that we could maybe, in a more direct way, try to establish some type of a floor price. When you see certain governments which control oil supplies, manipulating those oil supplies, I would hope that at some point, at some level, we would intervene to provide some stability and avoid wrecking the domestic industry.

And also, Mr. Chairman, I would echo the comments made by Senator Wallop dealing with OCS. I happen now to be the Ranking Republican on the Interior Appropriations Subcommittee, I would hope that we would not follow the same mistakes that have been made in the past by continued extensions of OCS moratoria, extensions without hearings, in many cases: extensions without a great deal of thought given to what it means to the national energy picture as well. And so I would hope that this committee would seriously consider it.

Maybe this Congress would consider it as part of the energy package that we look at to come up with a fair, reasonable, sound energy policy dealing with OCS. One that is very considerate of our environmental aspects and problems, but also considerate of the energy dilemmas which we find ourselves in. And I look forward to working with you to try to make that happen this year.

[The prepared statement of Senator Nickles follows:]

STATEMENT OF SENATOR DON NICKLES
HEARING ON THE STRATEGIC PETROLEUM RESERVE AND OCS
COMMITTEE ON ENERGY AND NATURAL RESOURCES
March 11, 1991

Mr. Chairman, I certainly support in principal the Johnston-Wallop "oil security premium", which recognizes that the price of oil is below the total cost of that commodity. Although I have a number of reservations concerning this particular "in kind" mechanism, I share the Chairman and Ranking Republican's desire to provide an incentive for domestic oil producers. I, too, am alarmed that oil production in the United States has dropped terribly since the decline of oil prices during the 1980's bottomed out at below $10 per barrel in August of 1986. Production in the lower 48 states has dropped by almost 19% since 1985, fully 615 million barrels a year, or about $1.2 billion in additional oil imports at $20.00 per barrel.

Earlier this year, I introduced a bill that would establish a minimum floor price on domestic oil by imposing a variable tariff. I believe that approach is far superior to the provision in the Chairman's bill because it will provide investment certainty by creating a floor price that banks and investors can rely on in making investment decisions and loans. The wild fluctuations of crude prices during the fall months of 1990 --jumping from $25 to $40-- did not encourage much drilling. Even though October and November crude prices were 150 to 200 percent of the prices of October and November of 1989, domestic drilling rig count increased only about ten percent. The reason was a justifiable uncertainty about future oil prices. That concern was well founded. Oil was back into the high teens at the beginning of this month.

The "oil security premium" provision is important in that it raises the issues surrounding import fees, floor prices and investment

capital. I am troubled that the Administration's proposals do almost nothing for the independent oil producer. I am troubled that the tax changes in last year's Budget Reconciliation bill were only somewhat helpful. Omitted was the removal of all intangible drilling costs from the alternative minimum tax. I have also introduced a bill to eliminate IDC's from the alternative minimum tax and invite my colleagues to join as cosponsors.

Every barrel of oil that we do not produce domestically will be imported, adding to our trade deficit, hurting our economy and essentially exporting jobs and tax revenues. We in the oil patch were reluctant participants in the last OPEC engineered price free fall in the 1980's. We lost much irreplaceable production. We should not let this happen again as Kuwait and Iraq bring their production back on line and flood the world's crude markets.

With respect to the provisions in S. 341 that would give a portion of the federal royalty from new OCS oil and gas development to state and local governments, I would be interested to hear the witness' comments as to how much incremental production this new federal expenditure will encourage. Certainly, such a provision derserves serious consideration if it could eliminate the kind of opposition to OCS drilling activitiy we have seen in states other than those in the western Gulf.

The CHAIRMAN. Thank you, Senator Nickles.
Senator Akaka.

STATEMENT OF HON. DANIEL K. AKAKA, U.S. SENATOR FROM HAWAII

Senator AKAKA. Mr. Chairman, thank you.

First let me say, Mr. Chairman, that Senator Inouye wanted to be here today and testify in person. As you know, our offices have worked very closely on the need to establish a regional petroleum reserve in Hawaii. Unfortunately, the Senator has a conflict, and cannot attend our hearing. I believe we have his prepared remarks which can be inserted into the record.

The CHAIRMAN. And we will do so.

[The prepared statement of Senator Inouye follows:]

STATEMENT BY U.S. SENATOR DANIEL K. INOUYE
BEFORE THE SENATE ENERGY & NATURAL RESOURCES COMMITTEE
IN CONSIDERATION OF
S. 341, "THE NATIONAL ENERGY SECURITY ACT OF 1991"

Dirksen Senate Office Building, Room 366
Monday, March 11, 1991--2:00 p.m.

Mr. Chairman, Members of the Energy and Natural Resources Committee, I am pleased to testify in favor of S. 341. The purpose of this bill is to reduce our dependence on imported oil, and I whole-heartedly support that goal. The time is ripe for reevaluating our energy sources. Following the outstanding performance of our troops in the Gulf Crisis, I think it behooves us to carefully consider America's dangerous reliance on foreign oil. As a nation, the United States must seek to end its heavy dependence on foreign oil supplies, and in the interim we should strengthen the Strategic Petroleum Reserve system. We in Hawaii are especially cognizant of the dangers of over dependence on foreign oil.

Hawaii is particularly exposed to the dangers of an interruption in petroleum supplies. With its unusually high dependence on oil as an energy source, 60 percent of which comes from overseas, and its geographical isolation from the U.S. mainland, the State of Hawaii requires special attention in any attempt to formulate a national energy policy.

S. 341 contains fifteen titles which include all the necessary elements of a national energy policy. Today we are specifically discussing title VII and title VIII, so I will limit my comments to the Strategic Petroleum Reserve. Beginning FY 1992, DOE must fill the Strategic Petroleum Reserve at 220,000 barrels per day to meet the petroleum needs of the Department of Defense. Oil importers would be required to provide petroleum products for these purposes in an amount equal to a percentage of their total imports as determined by the Secretary of Energy. This bill would expand our Strategic Petroleum Reserve to one billion barrels and establish a supplementary oil reserve. The bill will thus reduce the dangers of supply disruption and strengthen our nation.

Hawaii imports 60 percent of its oil from overseas sources, far more than the vast majority of the U.S. I support the Chairman and Senator Wallop's efforts to require oil importers to provide petroleum products for these purposes in an amount equal to a percentage of their total imports as determined by the Secretary of Energy. However, according to your description in the Congressional Record, this formula would require importers to place an estimated 9 percent of their shipments in our SPR program, and such a requirement will raise the price of oil roughly 9 percent. Given Hawaii's strong reliance on imported oil, I fear our state will be particularly hard hit by such a measure.

Table 1.
DOMESTIC AND FOREIGN OIL SUPPLIES IN VARIOUS STATES (1990)

STATE	TOTAL SHIPMENTS (1,000 bbls)	FOREIGN %	DOMESTIC %
ALABAMA	33,974	37.8%	62.1%
ALASKA	45,078	1.3%	98.7%
ARKANSAS	19,120	39.9%	60.1%
CALIFORNIA	683,583	5.8%	94.2%
COLORADO	24,497	0.0%	100.0%
*HAWAII	47,883	60.1%	39.9%
*ILLINOIS	300,510	57.0%	43.0%
INDIANA	139,959	33.6%	66.4%
KANSAS	114,194	3.3%	96.7%
*LOUISIANA	300,510	57.9%	42.1%
MICHIGAN	38,593	23.6%	76.4%
*MISSISSIPPI	120,815	86.7%	13.3%
*MONTANA	46,821	55.9%	44.1%
*NEW JERSEY	130,553	99.1%	0.9%
NEW MEXICO	25,780	0.0%	100.0%
OHIO	154,642	26.5%	73.5%
OKLAHOMA	134,847	4.1%	95.9%
*PENNSYLVANIA	253,811	93.4%	6.6%
*TEXAS	1,336,720	53.5%	46.5%
UTAH	49,088	0.0%	100.0%
WASHINGTON	172,320	9.7%	90.3%
WYOMING	47,495	0.0%	100.0%
*PUERTO RICO	46,755	94.7%	5.3%

* Indicates states or territories in which more than half of the petroleum imports come from foreign sources.

Hawaii's particular vulnerability to energy supply interruptions has greatly troubled the State government. As I mentioned earlier, Hawaii is uniquely vulnerable because of its insular location, remoteness from petroleum supplies, and lack of indigenous fossil fuel resources. An energy supply disruption will curtail transportation to and from the islands, devastating the entire state economy. As you know, Hawaii is 2500 miles from the continental United States. Accordingly, the State depends on air transport for passenger travel as well as for shipment of food and other supplies. The devastation will not be limited to the State's dominant industry--tourism--but will extend to the supply of basic necessities.

Furthermore, the mission of our military forces in Hawaii will be compromised by inadequate petroleum stocks. After all, military and civilian personnel that support military installations depend on petroleum to get to their duty stations. In addition, Hawaii has a general, moral and practical responsibility to assist American territories throughout the Pacific. Supplies from the Pacific Basin will be in increasingly tight supply. Therefore, the energy security of the entire Pacific will be diminished. The federal government's obligation to the security of the nation extends to the Pacific, not only for Hawaii but for

our trust territories as well. A commitment to the Pacific, in the form of oil supply storage in Hawaii, would be welcomed by all U.S. Flag territories and commonwealths in the Pacific Basin. With sufficient reserves, Hawaii could help meet their strategic needs.

The problem unique to insular areas has been recognized in part by portions of this bill, namely Section 3401. However, I have promised to limit my remarks to the portions discussed today. Suffice it to say that Hawaii has been left out of the consideration to insular and import dependent areas, and I hope that this can be amended.

The other 49 states all have access to oil transported by pipeline, rail, or highway. However, in Hawaii all of our oil and refined products arrive by ocean tanker. Our reliance on tanker deliveries makes Hawaii exceptionally vulnerable to a cutoff of oil supplies. The U.S. Department of Energy's past assurances that sufficient tanker capacity exists and that shipments can be timely dispatched to Hawaii in an emergency are hardly equal to the security of a reserve storage facility.

The chart I have prepared illustrates the points I have been making and shows the movement of petroleum to Hawaii.

MOVEMENT OF PETROLEUM TO HAWAII
(BARRELS PER DAY)
1980(?)
ALASKA
CANADA
35,000
CRUDE
U.S.A.
KOREA
CHINA 10%
AUSTRALIA
CRUDE
MALAYSIA
SINGAPORE
INDONESIA

I would urge the Committee to amend the program to allow for the establishment of a regional petroleum reserve in Hawaii, to allow us to maintain our own emergency petroleum supplies using the mandated contribution to reserves. If we are to pay more in order to increase strategic supplies, let us keep the oil in Hawaii. In time of crisis, Hawaii's physical isolation from the United States mainland could make such a regional reserve vital for the continuation of civilian and military operations in our state.

In accordance with this bill, I respectfully request your consideration of an amendment to locate a small portion of the supplementary oil reserve in Hawaii. If oil were stored in Hawaii, it would give us some measure of assurance that the economic well-being of our citizens is protected. Our national security is also strengthened by providing for the energy needs of the 66,000 Hawaii residents who work at Pearl Harbor and the other military bases throughout the Pacific.

Storage facilities for these reserves could be provided by either the Federal Government, or by leasing storage capacity from petroleum companies in Hawaii, as has been suggested in previous legislation. I would also support tax incentives and other measures to encourage private construction.

I urge my colleagues to consider both Hawaii's strategic importance and relative geographical isolation, and support the establishment of a regional storage facility in the islands.

Mr. Chairman, thank you for the opportunity to present this testimony.

Senator AKAKA. Mr. Chairman, an oil emergency reserve is a matter of great concern to the people of Hawaii. Our islands are rich in many things, especially beauty but poor, very poor in fossil fuels. We rely on oil for 90 percent of our energy needs. All of it arrives by ocean tankers. Hawaii is the most oil-dependent State in the Nation. We are more dependent on oil than is Japan. An oil supply disruption is our greatest nightmare. If the Middle East sneezes, as they say, the Mainland may only catch a cold, but Hawaii catches pneumonia. That is why we need an emergency petroleum reserve.

The United States has roughly 570 million barrels in reserve. If imports were severed, the rest of the country would be safe from serious economic harm. Hawaii would not be so fortunate. Our only means of access to the Strategic Petroleum Reserve would be tanker deliveries from Gulf ports through the Panama Canal. Studies have determined that the minimum delivery time for SPR oil to Hawaii is 53 days. This exceeds Hawaii's average inventory by 23 days. Under these circumstances, our oil supply would dry up, and our economy would come to a stand still.

Hawaii tax dollars help fill and maintain the Strategic Petroleum Reserve, but Hawaii does not benefit from the energy security the reserve provides. And I feel that is not fair. And it is not right. Hawaii is the only island State, but we are still part of the Union, and if the National Energy Strategy is intended to safeguard all 50 States, then Hawaii must have an emergency petroleum reserve, too. That is why the proposal to establish an oil premium to fill the Strategic Petroleum Reserve has special interest to us in Hawaii.

Under the Johnston-Wallop bill, oil importers would be required to relinquish a certain amount of the petroleum products they import to be used to fill the Strategic Petroleum Reserve. If this proposal advances, it is only fair that the oil security premium for oil imported to Hawaii remain in Hawaii. There is no justification for Hawaii, which desperately needs emergency supplies of oil, to send oil products to the mainland central reserve. That would be what the English call carrying coals to Newcastle.

Thank you very much, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Akaka.

Senator Craig.

STATEMENT OF HON. LARRY E. CRAIG, U.S. SENATOR FROM IDAHO

Senator CRAIG. Mr. Chairman, first of all, thank you very much for developing this hearing as it relates to the two provisions that we are looking at today in S. 341. I am going to spend most of my time listening, but I do have concern as it relates to the provisions as they are currently being drafted, or as they are currently drafted.

I find it most difficult to accept the idea of an oil import fee in the disguise that it has been cautiously cloaked in the form of 341 because I believe that is what it is. And if it is in fact a fee, in the form of the price of $20 a barrel for X number of barrels that comes out somewhere near $5 billion a year, then it is disproportionately cast upon the importers versus the domestic producers.

The CHAIRMAN. If the Senator would yield, and I do not want to interrupt except to say that it works out to about 9 percent per barrel, which is about $1.80 a barrel.

Senator CRAIG. What is the total annual cost computed based on your figures, Mr. Chairman?

The CHAIRMAN. About $5 billion.

Senator CRAIG. About $5 billion. Okay. But the impact born by the importer and ultimately, then the consumer. Because that is what we would have to allow that price to float to. And obviously that is the nature of the marketplace.

Now, I think I am fair in that assessment and that frustrates me. I have not supported, nor do I plan to support the concept of an import fee because of the inequitable distribution that has almost always historically resulted from the ability to analyze that or to develop it.

Secondly, the Outer Continental Shelf, I understand the critical nature of that, Mr. Chairman, as it relates to the politics of given States. I do not appreciate the environmental arguments. I think they are, in large part, based on false information or old data that simply does not hold true today based on the techniques that we know are available, and more importantly the values that are out there.

I guess I can accept the possibility of some semblance of a revenue flow to coastal States, especially for a nonrenewable resource, the nature of the depletion that goes on. We have done that in the past with minerals versus renewables and that does make some sense. I am certainly willing to work to see if we cannot accomplish some way to convince these States, if not by the logic of our wisdom, then by the largess of the public treasury, that they ought to allow the Federal Government to drill its oils.

The CHAIRMAN. Thank you very much, Senator Craig.

Now at long last, Senator Chafee, we are delighted to have you here. Please proceed.

STATEMENT OF HON. JOHN CHAFEE, U.S. SENATOR FROM RHODE ISLAND

Senator CHAFEE. Thank you very much, Mr. Chairman. First of all, I want to thank you for giving me the opportunity to appear before you this afternoon. I have a full statement which has been submitted.

What I would like to do, Mr. Chairman, and members of the Committee, is to summarize. Under title VII of S. 341, the new oil security premium would require oil importers to provide a certain percentage of their petroleum products imports to the Federal Government. These products would be used to fill the strategic petroleum reserve and, as I understand it, to meet the needs of the Defense Department likewise.

Mr. Chairman, I am not clear whether there is a limit on what the needs of—whether there is a set limit and how much the Defense Department would claim out of this. But in other words, I suppose it would be a great incentive from the Navy's point of view for unlimited steaming hours, and flight hours, and operational

fuel for the Army likewise. But I do not know the answer of what you propose to do.

The CHAIRMAN. The figure of 9 percent was arrived at at the fill rate availability of the Strategic Petroleum Reserve, plus the projected needs of the Department of Defense. There is not a limit on it, but this was a projection of what those needs have been.

Senator CHAFEE. I do not want to belabor this, Mr. Chairman, but I do think that the military services, particularly the Navy, given access to unlimited amounts, would greatly increase its consumption over what it has been. In other words, increase steaming hours which has always been a factor in their maneuvers and operations, the availability of fuel.

But, I do not want to make a big thing out of that, Mr. Chairman. Let me, if I might, proceed. Although this oil security premium technically is not an oil import fee, to me, as it does to Senator Craig, it looks and acts suspiciously like an oil import fee.

It has the identical purpose and impact of a fee. It would cause the price of oil sold in the U.S. to increase, thereby protecting U.S. oil producers and harming U.S. oil consumers and our economy.

Now, whatever you choose to call such oil import proposals, in my judgment, they are bad economic policy because they are aggressive, inefficient, inflationary, costly, and protectionist. They are bad energy policy because they fail to address the root of our energy problem and to provide only a short-term answer to some of the side effects of that problem.

Let us look at their economic impact. First and foremost, those who would suffer directly would be the consumers who would be hit with higher prices, especially for heating oil in the winter. In the past, consumer groups have estimated that adding a $10 cost to each barrel of imported oil would increase the average family's heating and gasoline cost by 27 percent.

These costs have a highly skewed and regressive effect. With cold winters, such as we have in my section of the country and a large industrial sector, New England is the top oil consuming region of the Nation. Even though our reliance on oil has dropped from 78 percent 10 years ago, 1978, 13 years ago, to 65 percent in 1988, that is a pretty sizable drop in 10 years. If the price of imported oil is increased, New Englanders will be the hardest hit.

I just want to mention about my own State, Mr. Chairman, Rhode Island. Oil represents about 64 percent of our energy mix, which is far higher than the national average oil consumption of 43 percent. 38 percent of our electricity is generated by oil, and 57 percent of our households use fuel oil, about 800 gallons a year, for heating.

Energy costs simply are unavoidable in an area of the country where heat is certainly not a luxury. These necessary costs are expensive. The average annual residential energy cost for Rhode Island, that is average, is $1,300 a year.

According to the National Consumer Law Center, a Rhode Island widower living on Social Security, could spend up to 20 percent of his annual income on energy costs. A very substantial portion of his income is on energy, fuel oil.

If oil prices are raised via an oil import fee or some other device or approach, Rhode Islanders could pay several hundred dollars more per year in energy costs, and we believe this to be unfair.

We cannot adopt policies that take from Peter, meaning the oil consuming regions, to pay Paul, the oil producing regions.

Right now, my own home State is undergoing a particularly difficult time. A regional economic downturn, which everybody is aware of in the Northeast, New England especially, deficits at the State level and closure of dozens of credit unions. So it is certainly a bad time for us to levy a disproportionate cost on us.

Another important consideration is in the macro-economic impact on U.S. businesses and U.S. economy. The administration noted recently that fixed or variable oil import fees would "produce net losses to the U.S. economy that would far outweigh its energy supply benefits." That is the end of the quote. And went on to calculate that a floor of $25 per barrel would cost the country $150 billion in lost GNP.

Particularly vulnerable are agriculture, airlines, plastics, petrochemicals, steel, textiles, and fertilizer. Also, consider the impact such policies would have on our international competitors and I think this is a very real point, Mr. Chairman, particularly with our country slogging through a recession.

If the U.S. were to unilaterally and artificially increase its oil prices above world market levels, U.S. industries would be sliced at a significant disadvantage. And that is a very important point.

There are several other economic ramifications. The oil security premium could have a negative impact on many of our oil producing allies, particularly those in the western hemisphere, such as Venezuela, Canada, and Mexico, to which we look for a steady, reliable supply of oil should we need it.

In addition, oil import proposals may be incompatible with our obligations under the general agreement of tariffs and trade, so-called GATT. In the context of the national energy policy, will an oil security premium, or an oil import fee, contribute to our long-standing national energy security?

My answer to that question is a resounding no. True, by stimulating domestic production, we might be able to replace some percentage of foreign oil imports with U.S. oil. Unfortunately, this argument blurs the vital distinction between oil supply and oil dependency.

If energy security is simply a matter of insuring that we can maintain a dependable energy supply instead of an unpredictable Middle Eastern one, then a buy American oil policy certainly could fit the bill.

However, if energy security involves reducing our dependency on oil and diversifying the sources from which we receive energy, and I really think that is what energy security is all about, then buy American can do more than address a persistent symptom of the real problem.

To summarize, I would say it is not in our national economic or energy security interest to enact oil import provisions such as those under S. 341, title VII. Enactment of such protectionist, inflationary, and discriminatory provisions would have a significant negative impact, not only on consumers, but on our economy, our com-

petitive and trade positions, our foreign allies, and ultimately, they would not solve our energy security and environmental needs.

That concludes the statement I have, Mr. Chairman.

[The prepared statement of Senator Chafee follows:]

John H Chafee

STATEMENT BY

SENATOR JOHN H. CHAFEE

BEFORE THE SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

ON TITLE VII OF S. 341, THE ENERGY SECURITY ACT OF 1991

March 11, 1991

I would like to thank the Chairman and Ranking Member of the Committee for giving me the opportunity to testify before you today. My remarks will address the Strategic Petroleum Reserve (SPR) provisions in Title VII of S. 341, the Energy Security Act of 1991. Under the bill, oil importers would be required to provide petroleum product -- in an amount to be calculated as a percentage of total imports -- to be used to fill the SPR and to meet the petroleum product needs of the Department of Defense. This requirement is known as the Oil Security Premium.

Although this Oil Security Premium technically is not an oil import fee, it looks and acts suspiciously like an oil import fee. In other words, although the Premium may not be structured as an import fee, it has an identical purpose and an identical impact as such a fee: it would cause the U.S. price of oil -- foreign and domestic -- to increase, thereby protecting U.S. oil producers and harming American consumers and the national economy.

Whatever you choose to call it, it is a bad policy for the country to adopt. I freely admit that in this case, the idea of an Oil Security Premium sounds wonderful: have foreign oil importers provide the oil for our Petroleum Reserve or for the Defense Department -- and the U.S. government doesn't have to pay for it -- it's "free!"

Simply put, however, it's not free; in fact, it would be extremely costly, both in the short- and long-term, for the nation. By imposing an in-kind payment or contribution requirement on oil importers, we would be adding to their business costs. Clearly, importers would then be forced to recoup these additional costs by raising the price of the oil they sell to us. In effect, that means an artificially high price would be set for imported oil.

Domestic producers, assured that their competitors' prices will stay high, would have a real incentive to produce oil, since they could now charge a high enough price to make it worth their while. Thus, the price of both foreign and domestic oil in the U.S. would increase -- perhaps a boon to the declining domestic oil industry, but a burden to the rest of us. This is bad economic and bad energy policy.

An Oil Security Premium, oil import fee, or similar proposals are bad <u>economic</u> policy because they are regressive, inefficient,

inflationary, costly, and protectionist. They are bad energy policy because they fail to address the root of our energy problem, and provide only a short-term answer to some of the side-effects of that problem.

Let's look at the economic impact of such proposals -- in this case, an Oil Premium. First and foremost, those who would suffer directly would be consumers, who would be hit with higher prices, especially for heating oil in the winter. In the past, consumer groups have estimated that adding a $10 cost to each barrel of imported oil would increase the average family's heating and gasoline costs by 27 percent.

This impact would be particularly severe in areas of the country that are heavily dependent on oil, and this brings me to my second point: measures that raise import prices have a highly skewed, regressive effect. Simply put, they transfer income from one segment of the country (oil-consuming) to another (oil-producing).

With cold winters and a large industrial sector, New England is the top oil-consuming region of the country. We have diversified our energy base since the late 1970s, with our reliance on oil dropping from 78 percent in 1978 to 65 percent in 1988. Even so, we remain the highest oil-dependent region in the U.S. If

the price of imported oil -- and thus the price of domestic oil -- is raised, New Englanders will be the hardest hit.

Let me tell you about my home state of Rhode Island. Oil represents about 64 percent of our energy mix, far higher than the national average oil consumption of 43 percent. 38 percent of our electricity is generated by oil, and 57 percent of our households use fuel oil -- about 800 gallons annually -- for heating. Energy costs simply are unavoidable in an area of the country where we experience cold temperatures -- and where heat is not a luxury. But these necessary costs are expensive: the average annual residential energy costs are about $1,300. According to a 1989 study by the National Consumer Law Center, a widower receiving Social Security benefits can spend 20 percent of his annual income on energy costs. If oil prices are raised through an oil import fee, individual Rhode Islanders could pay several hundred dollars more per year in heating and transportation costs.

That is unfair. We cannot adopt national policies that take from Peter (meaning the oil-consuming regions) to pay Paul (the oil-producing regions). Right now, my home State is undergoing a particularly difficult time -- a regional economic downturn, deficits at the state and national level, and the closure of dozens of credit unions. It is not a good time to levy a cost that will have a disproportionate effect on us.

Another important consideration in the debate over oil import fees must be the macroeconomic impact such measures would have on U.S. businesses, and throughout our economy. We caught a glimpse of this impact during last fall, as oil prices rose in the anxiety about the Persian Gulf situation. The industrial sector was hit, and hit hard, with the sudden cost increases. One good example of an industry that suffered then and would suffer under such import measures is the airline industry. Equally vulnerable would be other industries that are fuel-dependent -- agriculture, petrochemicals and plastics, steel, textiles, fertilizers.

That translates into bad news for the U.S. economy. Estimates from the Department of Energy and other sources have shown that higher imported oil prices caused by fees could result in a high loss of jobs (perhaps 1 million over four years, depending on the amount of increase), a one-time inflationary effect of 2 or 3 percent, and the loss of tens of billions of dollars in our national GNP. The Administration noted recently in its National Energy Strategy that fixed or variable oil import fees would "produce net losses to the U.S. economy that would far outweigh its energy supply benefits," and went on to calculate that an imposed floor of $25 per barrel would cost the country $150 billion in lost GNP.

I would ask my colleagues to consider the kind of effect such policies would have on U.S. competitiveness -- particularly now, with the nation slogging through a recession. It was hard enough during the period of higher prices stemming from concern about the Gulf -- and that burden was borne by companies all over the world. If the U.S. were to unilaterally and artificially increase its petroleum prices above world market levels, American industry would be placed at a significant competitive disadvantage in world markets. By increasing our industrial costs of production over those of foreign industries, we would be handing our competitors a real "freebie."

There are other serious economic ramifications to oil import fees -- disguised or otherwise. Were we to hit oil importers with required "in-kind" contributions, or import fees, or other such proposals, we could hurt many of our oil-producing allies, particularly those in the western hemisphere that we look to as a constant reliable source, such as Venezuela, Canada, and Mexico. Many have argued that these countries are exactly the ones we should be encouraging if we want to diversify the sources from which we import oil.

Furthermore, import proposals could lead to incompatibility with our obligations under the General Agreement of Tariffs and Trade (GATT). While some have made the argument that oil import

fees and the like are in the interests of "national security," and therefore GATT-exempt, there is a strong case to be made that such proposals are no more than thinly-disguised protectionism for the ailing domestic oil industry -- and that takes us right back into possible GATT violation. Certainly if we were to make exceptions for those "friendly" oil-producers I mentioned above, we would be held to be in violation of GATT.

I'd like to address another aspect of the Oil Security Premium, and that is its use in the larger context of a national energy policy. First of all, many have used the recent turmoil in the Gulf -- and the accompanying turmoil in energy prices -- as concrete proof that we need a national energy strategy. While I do not disagree, I would point out that we have long needed an energy strategy -- this is nothing new. The Gulf situation did not create this need; it simply highlighted it. Therefore, we should not hastily adopt a "quick fix" to energy needs. We must plan carefully, for the long-term, if we want to ensure the viability of an energy plan.

To answer the question "Will an Oil Security Premium (or oil import fee or so on) contribute to a long-term national energy plan?," I would say No. It is true that by stimulating domestic production, we might be able to replace some percentage of foreign imports with U.S. oil. But this argument blurs the vital

distinction between oil supply and oil dependency. If energy security is simply a matter of ensuring that we can maintain a dependable energy supply instead of an unpredictable Middle Eastern one, then a "Buy American Oil" policy could fit the bill.

However, if energy security involves reducing our dependence on oil and diversifying the sources from which we receive energy (and I think that is what energy security is all about), then "Buy America" can do no more than address a persistent symptom of the real problem.

Frankly, we Americans are contentedly color-blind as to oil's origins when it comes to filling the tank. Thus, foreign oil should not be cast as the bogeyman in the national energy policy debate; the real bogeyman is our over-reliance on oil -- be it foreign or domestic. Policies that spur domestic production may provide a short-term lull in an energy crisis, but they merely put off until later the day of reckoning.

In addition, policies that spur domestic production do not address -- in fact, they exacerbate -- energy-related environmental problems such as global warming.

To summarize my views, then, I would say that it is neither in our national economic nor energy security interests to enact oil

import provisions such as those in S. 341. Enactment of such protectionist, inflationary, and discriminatory provisions would have a significant negative impact on not only the consumer, but the economy, the U.S. competitive and trade positions, and foreign allies. And ultimately, they would not solve our energy, security, and environmental needs.

The CHAIRMAN. Thank you very much, Senator Chafee. Obviously, we disagree on some things here. But let us see if we can start with what we do agree on. I am sure you would agree with me that the Strategic Petroleum Reserve is an important part of our energy security strategy.

Senator CHAFEE. Yes.

The CHAIRMAN. And certainly, during the last interruption, particularly Senators from the Northeast pointed out that we ought to have the SPRO, not only for supply disruptions, but to level out those price spikes that are also so troublesome.

Senator CHAFEE. Yes.

The CHAIRMAN. You would also agree with me that the amount here is small, it is only $1.80 a barrel and not $10 as you suggested or as you compared in your testimony. But even that small amount, it is still good for conservation price as an effective means of engendering conservation, is it not?

Senator CHAFEE. Price is, certainly.

The CHAIRMAN. And to the same extent, it would constitute an additional incentive for drilling for oil and gas in America?

Senator CHAFEE. So those who are more closely associated than I am with the situation, say.

The CHAIRMAN. Well I mean, you do not have to be a great free market economist to understand that additional price is directly additional incentives.

Senator CHAFEE. Correct.

The CHAIRMAN. And you will also understand here that the cost would be—I think you were concerned about a 27 percent. I think it would really be 4 to 5 percent. But that would in turn be offset by the money saved not coming from the treasury, both to fill the reserve and for use in defense. In other words, you would either be able to reduce other taxes to the same extent or have a higher or lower budget deficit. That certainly makes sense, does it not?

Senator CHAFEE. If it works its way through directly.

The CHAIRMAN. It is either a lower deficit or you can save money elsewhere.

Senator CHAFEE. If you are advancing on the assumption that, one, your projections are right, as to, I think you said 8 percent, did you, 7 to 8 percent?

The CHAIRMAN. 4 to 5 percent. Oh, the fee itself would be about 9 percent.

Senator CHAFEE. If you are right on that, and again, I do not want to belabor it, but I think your defense estimates may be off.

The CHAIRMAN. Well, we could certainly put a limit on it. I think that is not really the problem here, is putting the limit, because actually, when the Strategic Petroleum Reserve begins to be filled, then that part of it would come down drastically anyway. Are you familiar with the——

Senator CHAFEE. Do you have a limit? You are putting the defense, the Strategic Petroleum Reserve at, as I understand it, about 220,000 barrels a day. Was that not what you were attempting to do?

The CHAIRMAN. That is about right.

Senator CHAFEE. And is there a limitation to this? In other words, presumably at some point it gets filled.

The CHAIRMAN. That is right a billion barrels.

Senator CHAFEE. I notice Hawaii wants one in their State. So it could continue on. But let us say there is a limit somewhere.

The CHAIRMAN. The limit in the law is a billion barrels and we are a long way from that. What are we at, 540 million? It would take about 6 years, I am advised, to fill it.

Now, are you aware of the public opinion polls which show that of all the different taxes asked to people as to what they would be willing to pay for energy security, the only one that passes muster by over a majority is some form of an oil import fee.

Senator CHAFEE. I am not aware of that. And I am not aware that that was taken in my State either.

The CHAIRMAN. Well, there was one in National Journal and I have been slapping myself for not bringing it into the hearing today. I will supply it for the record, and I will send you a copy of it, and invite you to look at it. It really is the only—this is an oil security premium. Some call it a fee. Whatever you want to call it. That is the only thing that people in this country are willing to do because I think they understand the connection between imports and energy security.

You would agree with me, I think, that there is—that the real cost of oil is a whole lot more than just bringing it out of the ground or paying the Saudis or whoever we are paying, for the cost of importing it. You would also agree with me, I think, that the real cost involves those troops in the Gulf, those ships, whether we are flagging Kuwaiti tankers or whether we are having Air Force at Dharhan, or whatever. There is a lot of cost connected with bringing that, a lot of cost connected with that oil dependency. Would you not agree with that?

Senator CHAFEE. Yes. I do not know whether you can attribute the size of our military forces directly to the needs to protect the Far East oil, but Mr. Chairman, if you noted in my statement, I do not dispute the argument that we have got to do something about energy dependence. The question is how to approach that.

The CHAIRMAN. Well, you know the last solution I had for the Strategic Petroleum Reserve was to put SPRO off budget. And we enacted that legislation that started here in this committee. And that was the law of the land for a few years, and that is when we got the big increments for filling up the SPRO.

Then David Stockman came in and said, that is budgetary dishonesty, and put it back on budget. And consequently, we have never had a fill rate of, I think it has been less than 100,000 barrels a day since that time. It is always the—it is always submitted as part of the budget request and it always gets cannibalized as the process moves on because it is too tempting a target.

Do you have a suggestion as to how we might get SPRO filled and meet what you and I agree is a great national need?

Senator CHAFEE. I do not have a suggestion, but it seems to me that any proposal should be equally borne across the Nation. And I think you would agree with me that this particular proposal, and let us call it an oil import fee because, indeed, that is what it is, strikes far heaviest at those sections of the country that are dependent on oil imports. I mean, that is a fact.

The CHAIRMAN. Well, it depends upon where their oil really comes from. It depends upon their oil consumption. Would you not say that is correct?

Senator CHAFEE. That is right.

The CHAIRMAN. And while you use home heating oil in the Northeast, which comes, happens to come from imported oil, in Senator Wallop's State of Wyoming, they drive a great deal more than they do in the Northeast, and they use petrochemicals in my part of the world as well as driving.

So I think while it may be an uneven burden, there is not that degree of unevenness that you might suggest. I mean, it is not just the unevenness that comes from the imported oil. There is sort of a national balancing there.

Senator CHAFEE. Yes. But what makes it the unevenness is just as you pointed out, that those sections of the country that consume a great deal of oil, and where does most people consume their oil in our sections of the country is by heating. I mean, that is the way people heat their houses.

Now I am not sure of what the percentages are in, say Minnesota, and I am not solely talking of my own State. I am talking of all of New England. And others can testify as to the Northeast, that is New York, Pennsylvania, and so forth. But in New England, the percentage of homes that are heated by oil is far higher.

The CHAIRMAN. There is no question about that.

Senator CHAFEE. When you increase the price of that oil, the effect is felt there. Now you can say, you mentioned——

The CHAIRMAN. Well, it is felt by those who drive automobiles too.

Senator CHAFEE. That is right. But it is really not a close comparison to say that the increased driving that is done in Wyoming or Montana or wherever it might be, is anywhere near equal to the consumption of oil as is involved in heating one's home, as compared to heating with gas, for example, which most sections of the country do.

The CHAIRMAN. Well, I do not want to take up anymore time because I do not want to monopolize the time. There is obviously a great deal that you and I agree on here. What I wish you would do is help us on this committee come up with a policy that both produces energy domestically and helps us avoid the dependence.

The problem we have had, it seems to me, in all these years in the past, and I have been here on this committee for 18 years, is different sections and different interests, whether they are producers or environmentalists, always shoot down one another's propositions. And we never get anything done.

And if America is going to have an energy policy, we have all got to pull together and say, well, let us compromise a little bit. The French and Italians and Swedes, and others have a gasoline tax resulting in a gasoline price of $4 to $5 a gallon. I think the Germans just added another 60 cents to help East Germany. And I am not advocating a gasoline tax. But if they can do that, and if everybody praises the conservation effect of that, then surely in this country, to get the Strategic Petroleum Reserve filled and to take care of all our defense needs, then an oil import security premium of about 4

cents a gallon, to add 4 percent, is not too great a sacrifice for the country to pay.

I mean, if that is not the way to do it, give us a way that will get it done. But it is just not a sufficient answer, I think, to say, well your way is not good because it is going to cost a few bucks to a few people here and there. But we do not have an alternative to suggest.

You know, that is what we have had, is an alternative. We have had a national energy policy and you can call it by one word, import. And we are trying to get away from the policy.

Senator CHAFEE. Well, you know a lot more about these areas than I do, Mr. Chairman, but the effect of increasing the price of our oil goes right across the board. And you were citing what they are doing in Europe. But those are gasoline taxes, which deals with the consumption of oil—affects the consumption of oil very, very dramatically, but does not increase the price of oil for, say, their manufacturers.

And if one of the solutions—I have supported gasoline taxes. And we have had them increase many times since I have been here, as it has been with you likewise. To me, that hits everybody across the board. I think you pointed out the differences between Wyoming and New England as far as driving. I do not know how significant those are. Certainly, we do a lot of driving in our section, whether in Wyoming, or Montana, or the Western States. Vehicle miles traveled are greater than they are in our section of the country. I do not know how significant they are. But I suggest they are not that significant.

But, by doing what you are doing, you are suggesting in this legislation, you have a whole series of ramifications that go far beyond increasing the home heating oil for one section, which is bad enough. And it is not just pennies in the course of a year.

The CHAIRMAN. Well, it is 4 cents a gallon, roughly.

Senator CHAFEE. When you are operating on 1,500 gallons a year, that adds up to something. But in addition, it seems to me you are affecting our competitive position in the rest of the world when that translates into the oil that is used for petrochemicals or plastics or whatever it might be, which would not be true if you worked with a gasoline tax.

The CHAIRMAN. Senator Wallop.

Senator WALLOP. Thank you, Mr. Chairman.

John, I am not surprised at your testimony. You gave it once before when I held a hearing when I was the finance committee. I just pointed out then, as I point out now, that New England's judgment of what constitutes fair is singularly self-centered. I mean, those of us who——

Senator CHAFEE. As opposed to the rest of the Nation? [Laughter.]

Senator WALLOP. Let me suggest to you that during the shortages in the 1970's the rest of the Nation that produced oil paid homage to New England in the form of entitlements, significantly raising our cost of energy so that your cost would not be "distorted."

Let me also suggest to you that the purpose of this provision is not to increase the price of oil as you talked about, but to maintain

the price of oil. There is a big difference. How you phrase it is, in fact, incorrect. I would also like to comment on your point when you say that if the U.S. unilaterally and artificially increased its oil prices above world market levels, U.S. industries would be placed at a significant disadvantage.

One of the things that we have learned is that we pay far less than world market prices in this country. The other countries, and I am not advocating this, provide themselves a great deal of insulation from oil price shocks by the levels of the taxes that they levy. It gives them a great deal of flexibility so that if there is a major increase in the cost of oil in Japan it does not reach their industries because the Government can absorb that increase by taking down some of the prices that they currently pay.

One thing that surprised me in your testimony is that the view of the environmentalists is, generally speaking, that we do not pay enough for our oil, and therefore consume too much of it, and what we ought to do is increase its price.

I pointed out the awkwardness of what we have sought to do, because the standard sliding scale oil import fee has been denied us by the finance committee, and is not within our reach anyway. Too many New Englanders are on it anyway, or Easterners.

But you all have simply not got an interest in trying to resolve this problem. I sat on the Finance Committee for 10 years and was never able, except with Lloyd Bentsen and David Boren, to get anywhere even close. You may recall what happened in that committee and then on the floor of the Senate with Lloyd's and my bill that had the spectacular title of the Energy Security Act of 1986.

It had the spectacular feature of asking the President that if we got to around 50 percent dependency on foreign sources for our needs, that the President ought to look and recommend a few ways of going. And when we got to the floor, guess what happened in the Senate. We got shot down not in flames, we did not even get time to burn. The plane just disintegrated. And basically, because somebody was afraid somewhere along the line somebody might make the President think about an oil import fee.

So it is not just the inability of two previous administrations, four previous administrations, six previous administrations to come up with an energy policy. Congress does not want one. Your testimony here today is just symptomatic of one small segment of it.

We have had other testimony on other segments of this legislation, and until, as Senator Johnston suggests, we get around to being serious about trying to put together a group of things that affects us all a little bit, we are simply not going to have one. So what we are doing here is an interesting intellectual exercise, but not likely to lead to consequences unless we do find a way to give a little.

The CHAIRMAN. Thank you, Senator Wallop.

Senator Wellstone.

Senator WELLSTONE. Well, Mr. Chairman, this has been an interesting discussion. Let me see if I can sort it out.

I think, Mr. Chairman, that your focus on building up the strategic petroleum reserve is an important public policy goal, as is making sure that we have what is necessary for defense. And as Senator Wallop said, many environmentalists would, what we

would like to see the price of oil to go up. I understand that argument very well.

At the same time, maybe I am going to come down somewhere in the middle here, Senator Chafee. I am quite sympathetic, coming from a cold weather State that is the other end of the pipeline, to what you are saying. Mr. Chairman, I will first ask this of Senator Chafee, but I would also be interested in your response. Is there not perhaps some room here for a proposal that accomplishes a couple of public policy goals at the same time, namely this:

What the Johnston-Wallop bill proposes is an import fee, for all practical purposes. And it does accomplish worthy public policy goals. But I calculate this will result in, roughly speaking, $6 billion in windfall profits for the domestic producers. It would seem to me that that would be enough for the domestic producers to have some to invest in exploration and, at the same time, with an excess profits tax to acquire the funds, it would leave plenty left over for two things that would help our States.

Number one, money to deal with the problems of low income people who could very well be hurt by the increased oil prices, because this is a big part of their budget. And, just as importantly, number two, funding that could be used for grants to the states for investment in efficient energy use and renewables. That makes more sense to me. We should not just generate additional revenue for the domestic producers.

The CHAIRMAN. Well, we are going to give you a chance to vote for a fund for both alternatives and R&D on conservation, and all that through——

Senator WELLSTONE. But this could be an alternative fund.

The CHAIRMAN. Well, I mean, you can put on anything—you can increase the income tax. But we have got that—we are aware of the problem and we have a solution to it.

Senator WELLSTONE. Well, let me just ask Senator Chafee what he would think of that. In other words, we know we need to beef up that strategic reserve; no argument about that. We know we need it for defense. But by the same token, what you said was very persuasive. We want to cut down on our use of oil. We are trying to become more energy independent.

And so you could take some of that money and then send it back to the States, your State and my State, and use that funding for efficient energy use, conservation and renewables.

Senator CHAFEE. Well, I think always we can use monies for energy efficiency, and I presume that you are talking more highly efficient oil burners, for example, or electric appliances, or whatever it might be. All of that I believe in. I am not so sure that it always has to be accompanied by subsidies, if you would. In other words, I think there are various other kinds of incentives and, indeed, requirements that can be imposed on manufacturers of appliances to make sure that these are the most energy efficient.

But the point—yes, I am objecting here today to the specific effect that this proposal would on one section of the country and, indeed, in yours as well. But it seems to me it goes beyond that. That this proposal here will affect our competitive position in the world, as I previously stated. I mean, it is going to increase our

cost. Other people are buying oil at X dollars, the world market price. We are increasing that price.

And thus, it puts our manufacturers in those industries that I mentioned before—and no one knows better than you, Mr. Chairman, how oil seems to be used in everything—at a disadvantage. Now, Senator Wallop was previously speaking about the European countries have the slack in their taxes. I do not know whether they have taxes on oil or they have taxes on gasoline. Certainly, they have heavy taxes on gasoline, but I am not certain they have heavy oil taxes that would thus put them out of competitive reach.

The CHAIRMAN. If the Senator will yield, I understand that the Japanese just put on, I think it is a $2 a barrel what amounts to an oil import fee, to pay for their share of Desert Storm, $1 to $2, far exceeding the 4 to 5 cents we are talking about here.

Senator CHAFEE. In any event, they must obviously think that they can handle it competitively, and they are pretty successful in the competitive world. I do not think that our industries have that slack.

The CHAIRMAN. Well, they do now, at least as against the Japanese.

Senator CHAFEE. Pardon?

The CHAIRMAN. I say, if a 4 to 5 cent per gallon tax puts you at a competitive disadvantage, then the tax the Japanese just put on, even if we put on this fee, or what you want to call it, it was still more than competitive against the Japanese who are, after all, our chief competitor, since they put on $1 to $2 a barrel.

Senator CHAFEE. Yours would be, what did you say, $1.80 per barrel?

The CHAIRMAN. Roughly similar. About $1.80.

Senator CHAFEE. So the Japanese, who have been ahead of us anyway, would—whether the 20 cents would even it up, I do not know.

Senator WELLSTONE. Well, just to bring this to a close, Mr. Chairman, I am still intrigued with this idea that if we are going to be talking about a windfall profit of something in the neighborhood of $6 billion for the domestic producers, why not use, say $2 billion of that for incentives to domestic producers, $1 billion for low-income assistance, and $3 billion of an excess profits tax for energy efficiency and renewables. That sounds to me like a marriage made in heaven.

Senator WALLOP. I would say to my friend that nobody has the concept of a windfall profit tax in any of the things that we are talking about here.

Senator WELLSTONE. I just throw it out for the sake of discussion.

Senator CHAFEE. If I could say one thing, Mr. Chairman, in answer to Senator Wellstone, as the members of this committee recall, about 12 years ago, previous thereto, we had a differential. Remember, we had an oil import fee and we had a differential for home heating oil, and it was very complicated, and we were all glad when we got rid of that.

I have forgotten the exact name that was used to describe that. But in any event, it was to take into account a certain amount of oil that was imported for home heating, and it was a complex system. And all of us heaved a sigh of relief when we got rid of the

unwieldy mechanism. So I personally would not want to go back to it.

Senator WELLSTONE. I will not use up any more time. Again, I think, Mr. Chairman, that your proposal is an important step in the right direction, and I also understand Senator Chafee's concern about where the energy-importing States fit into this and I am concerned that we build some kind of equity into the proposition with my idea. That is the direction I hope we would go in.

Thank you.

The CHAIRMAN. Thank you very much.

Senator Craig.

Senator CRAIG. No questions, Mr. Chairman.

The CHAIRMAN. Senator Akaka.

Senator AKAKA. No questions, Mr. Chairman.

The CHAIRMAN. Senator Chafee, thank you very much. I hope you will—I know you will help us think about this problem of how we solve getting the strategic petroleum reserve filled. If you have got a better way, this is the place and this is the time to help us with it, and I know you will. And thank you very, very much for your testimony.

Senator CHAFEE. Thank you very much, Mr. Chairman and members of the committee.

The CHAIRMAN. Next, we have panel with the Honorable Bob Gentile, who is Assistant Secretary for Fossil Energy, and Barry Williamson, who is Director of MMS in the Department of the Interior.

Please proceed, Mr. Gentile.

STATEMENT OF ROBERT H. GENTILE, ASSISTANT SECRETARY FOR FOSSIL ENERGY, DEPARTMENT OF ENERGY

Mr. GENTILE. Mr. Chairman and members of the committee, the Department of Energy welcomes this opportunity to testify on the Strategic Petroleum Reserve and the Outer Continental Shelf provisions of S. 341.

Mr. Chairman, with your permission, I would like to have my prepared statement included in the record, and I will summarize it for you.

The CHAIRMAN. Yes, without objection.

Mr. GENTILE. The major feature of title VII of S. 341 is that the Secretary of Energy would be required to impose a variable in-kind import fee on importers of crude oil and refined petroleum products. The fee would be calibrated to yield enough oil to fill the Strategic Petroleum Reserve at a rate of about 220,000 barrels per day, up to a total of 1 billion barrels, and to satisfy the worldwide fuel requirements of the Department of Defense.

Based on DOD's level of usage before the outbreak of the war, that requirement is about 500,000 barrels of product a day, three-quarters of which is jet fuel. The total volume of the fee, about 720,000 per day, would be equivalent of a 9 to 10 percent import fee at the current rate prices of about $2 per barrel.

Mr. Chairman, the Department opposes the imposition of this in-kind fee on policy, economic, and technical grounds. In addition, we

oppose such a fee because it could be subject to lengthy legal challenges on the constitutional issue of taking without compensation.

In the area of trade, this Administration has always been for the reduction of trade barriers and freer trade. Title VII would impose an import fee that would run counter to that policy and raise serious questions from our trade partners regarding our obligations under the General Agreement on Tariffs and Trade, the GATT, and the U.S.-Canada free trade agreement.

The Department also has been consistent in opposing import tariffs and fees on petroleum because of the negative effects on the economy. The effects would include reduced economic output, reduced competitiveness in international markets, increased inflation, and wealth transfers from consuming areas of the country to producing areas. The fee would especially hurt petrochemical exporters and other manufacturers who export products that have a large component of petroleum.

Despite the fact that the fee as required by S. 341 is in-kind, the negative effects would be the same as a tariff. We would also anticipate major implementation problems if title VII of S. 341 were to become law because of the in-kind nature of the import fee.

For example, because the SPRO currently has capacity for only 750 million barrels of oil, the tariff would take an on-again-off-again nature as the available caverns were filled, and would reduce the fee until more facilities were created. At a very practical level, we would have the problem of small importers, who would generate obligations of less than a shipload of quantities per year and have difficulty filling that obligation.

Not only would the quantities be small, but in many cases the obligation would be for an unwanted, refined product. S. 341 makes provisions for dealing with problems such as these by creating a regulatory authority within the Department of Energy. However, the Department sees no value in creating a large, expensive bureaucracy to administer an in-kind import fee where the complexities are generated primarily by the fact that the fee is in kind.

Mr. Chairman, the administration is also concerned with the potential constitutional question of taking property without just compensation. While it is quite clear the Government has the right to impose tariffs and taxes, the in-kind fee required by S. 341 is of a different nature, and we believe would be subject to time consuming and expensive legal scrutiny, the conclusions of which are not obvious.

The Department also opposes Title VII of S. 341 because it would preempt the Department's implementation of the new authority passed by Congress last September to allow us to lease oil for the SPR. It is part of the President's fiscal 1992 budget that all SPR fill in the immediate future will be obtained by leasing, and the Department is beginning to organize itself to that objective. Passage of S. 341 would bring the leasing effort to a premature halt, possibly at the loss of great economic savings.

Requiring petroleum importers to supply oil to the SPR may reduce the apparent Federal budget effects of filling the SPR, but it would not reduce the cost to the economy.

Finally, title VII of S. 341 would disrupt the acquisition of oil for the Defense Department. Currently, all DOD fuel is procured on a

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worldwide basis by the Defense Fuel Supply Center. That organization has strong institutionalized connections with virtually every refiner in the country and in most friendly nations.

The FSC has developed procedures to ensure that product specifications and delivery requirements are satisfied around the world. If DOD's fuel supply is dependent upon DOE's implementation of S. 341, we would substitute a new bureaucracy operating in a regulatory environment for this proven line organization. We believe that would be a bad idea, and so does the Department of Defense.

Mr. Chairman, as the committee has requested, my prepared testimony also addresses increasing access to the Outer Continental Shelf, which is of great interest to the Department of Energy, and is part of the National Energy Strategy. I will limit my remarks only to the energy aspects of the issue.

It is our view that the OCS offers an immense opportunity for the United States to finally produce energy that would otherwise come from imports. Production from the OCS already is a major component of our total domestic production, and it is carried out in an environmentally conscious manner.

The NES proposes increased access to areas of the OCS under strict environmental safeguards. Specifically, it recommends that OCS areas currently under congressional moratoria except those also subject to the President's June 1990 deferral be considered by the Secretary of the Interior in formulating the new 5-year OCS program for 1992 through 1997.

The areas included in the President's moratoria would still be subject to greater environmental and resource assessment by the Department of Interior so that later decisions can be made on those areas. We believe that the NES provisions coupled with the proposed OCS natural gas and oil resource management program for 1992 to 1997 reflects the Administration's commitment to high standards for the protection of marine and coastal environments.

It is our hope that effective management of these areas would add billions of barrels of oil and trillions of cubic feet of natural gas to proven domestic reserves, all of which would provide jobs, income, and revenue for this country.

Mr. Chairman, this concludes my opening statement. I would be happy to try to answer questions at whatever point.

The CHAIRMAN. Thank you very much.

[The prepared statement of Mr. Gentile follows:]

STATEMENT OF
ROBERT H. GENTILE
ASSISTANT SECRETARY FOR FOSSIL ENERGY
U. S. DEPARTMENT OF ENERGY
TO THE
COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE
MARCH 11, 1991

Mr. Chairman and members of the Committee, the Department welcomes this opportunity to testify on the Strategic Petroleum Reserve and Outer Continental Shelf provisions of S. 341.

Strategic Petroleum Reserve

The Department's interpretation of Title VII of S. 341 is that it seeks to impose what is tantamount to a variable, in-kind, oil import fee, calibrated to meet supply requirements of the Strategic Petroleum Reserve and the Department of Defense. Specifically, the Secretary of Energy is required to set an annual percentage level which, when applied to anticipated U.S. oil imports for the coming fiscal year, would result in the "no cost" provision of petroleum products by importers to satisfy both a 220,000 barrels per day fill rate for the SPR plus the anticipated consumption of the Department of Defense.

These provisions are equivalent in effect to an oil import fee. They also constitute an off-budget approach to satisfying Federal Government petroleum needs, implemented through in-kind or "wet barrel" transactions.

The Department opposes Title VII of S. 341 on both policy and technical grounds, and because of its adverse effects on the United States economy. In addition, the requirement for "no cost" provision of oil for Department of Defense consumption and SPR storage raises serious constitutional questions concerning the "taking" of property without just compensation, contrary to the Fifth Amendment to the United States Constitution. Thus, any expected budgetary savings from this measure could prove to be entirely illusory.

Effects on Trade

From the perspective of international trade policy, the charge based on imports of petroleum created by this bill would likely lead our trading partners to raise questions about whether the charge conflicts with United States obligations under international trade agreements, including the General Agreement on Tariffs

and Trade (GATT) and the United States - Canada Free Trade Agreement. Also, imposition of the oil obligation generally would run counter to the position that this and previous Administrations have maintained in favor of the reduction of trade barriers and freer trade. Import fees or tariffs invite retaliation, a reduction of trade, higher inflation and a general deterioration in the standard of living.

Economic Considerations

An import fee has not been recommended as part of the Administration's National Energy Strategy because its costs would far outweigh its energy supply benefits. By raising the cost of oil and oil substitutes in the United States, such a fee would impose increased costs on a broad segment of the economy that relies heavily on petroleum products for transportation, heating, and raw materials for petrochemical and other products. This would reduce the nation's economic growth, increase inflation, increase consumer costs, and reduce the competiveness of U.S. companies in foreign and domestic markets.

An import charge of this type would also create a wealth transfer from consumers to domestic producers.

Domestic petroleum prices would rise to the level equivalent to the international market price of oil plus the effective fee, so that a portion of the increased costs to consumers would be reflected as increased revenues to domestic producers. This would have different effects on different parts of the economy. For regions or classes of consumers unable to substitute other fuels for imported oil, there would be a significant outflow of wealth.

Implementation Problems

Some aspects of the program would create significant practical difficulties. First, the level of effective taxation would be highly variable. Prior to the commencement of hostilities in Iraq and Kuwait, the United States armed services used approximately 500,000 barrels of petroleum fuels per day for training and peace time readiness activities. Added to the 220,000 barrels of fill required by Section 182(b), the total contribution would be at least 720,000 barrels per day or 9-10 percent of net U.S. oil imports. The amount earmarked for the SPR would fill the 750 million barrels of SPR cavern capacity in less than three

years. Fill would then stop completely and await the creation of new cavern capacity, during which time the percentage would be reduced.

Once storage capacity became available for the 750 million to 1 billion barrel increment, the fee would presumably increase again toward the 220,000 barrels per day level. This higher fee level would last only another three years before the new capacity was filled. The Department believes that having an unpredictable and fluctuating fee level would likely be a disincentive for industry to make long-term investments in energy production and demand reduction and, therefore, would tend to reduce or eliminate the energy security benefits that are associated with an import fee.

The Administration also opposes the bill because of the administrative complexity which would likely be caused by making the tax in-kind. Title VII obligates importers of petroleum to deliver petroleum to the Government. However, the extent of the obligation can lead to obvious complexities as the importer attempts to minimize the cost of satisfying his obligation. We expect that the in-kind nature of the fee will lead to

disputes, litigation, and very high costs of administration and litigation.

Small Quantities

An example of a difficult implementation issue is applying the in-kind fee to small quantities.

Assuming a 9 percent in-kind import fee during 1990, less than a quarter of the companies importing oil into the United States would have had an annual fee obligation of 300,000 barrels or more. This amount represents a single tanker-size delivery to the SPR. Thus, the majority of companies might be faced with having to use a tanker to deliver a partial load to an SPR location, an inefficient and expensive logistics problem, and the smaller the fee obligation, the greater would be the relative cost of complying.

In anticipation of problems such as these, S. 341 allows the Department to promulgate rules and regulations. However, it is questionable what authority the Department would have to grant exceptions. Moreover, there is no intrinsic value to an in-kind tariff that would justify the cost to both Government and industry of writing, interpreting and

defending regulations. Further, examination of the types of products that are imported suggests that most transactions would require some type of monetary adjustment, to allow for the difference in value between what is owed by the importer, and the petroleum the Government actually accepts.

Given all of the other programs that the Administration is prepared to fund within the National Energy Strategy, the Department of Energy believes it would be unwise to allocate scarce human resources to implement a major regulatory program of the kind implied by S. 341.

Impact on Domestic Exporting Industries

The import charge also presents difficulties for domestic companies that add value to petroleum imports. S. 341 provides for a credit of the fee paid on imported petroleum which is subsequently re-exported. However, if the petroleum has value added, and is exported in a form other than a petroleum product, the credit does not apply, and the import fee would put domestic industries at a disadvantage to offshore competitors. The petrochemical industry is especially subject to this problem, but any manufacturer using

petroleum would be affected. Furthermore, S. 341 does not provide any offset for the higher cost of domestic petroleum, which will be a disadvantage even to exporting U.S. refiners.

"Taking" of Property

Section 156 of the Energy Policy and Conservation Act authorizes the Secretary of Energy to require importers and refiners to store petroleum in the Strategic Petroleum Reserve, as part of an "Industrial Petroleum Reserve" (IPR) program. This provision has not been implemented. One objection to exercising the authority has been the unresolved issue of whether such a program amounts to temporary or permanent "taking" of private property for public use, requiring "just compensation" of the owners under the Fifth Amendment to the United States Constitution.

The bill's requirement that importers provide "no cost" oil to the SPR and the Department of Defense raises similar issues. Indeed, in this case the separate requirement that "no cost" oil be provided to the Department of Defense for consumption (as distinguished from potentially temporary SPR storage) raises the issue even more dramatically. Furthermore, by imposing

the oil-supply burden against imports only, rather than imports and domestic production, S. 341 raises trade issues that are not necessarily present under the existing Section 156 IPR authority.

Alternative Financing

The Administration also opposes this portion of S. 341 because it effectively replaces the alternative financing authority provided to the Administration by the Congress last fall in the amendment and extension of the Energy Policy and Conservation Act, Public Law 101-383. The most common form of alternative financing is often referred to as a "lease" and would allow the United States to acquire oil from major exporting countries under financial arrangements which provide benefits both to the U.S. and to the producing country.

Because of the embargo of Iraqi oil exports and the subsequent cessation of SPR fill, the Department has not yet negotiated any alternative financing agreements. However, the Department is forming a team that will hold discussions with exporting countries, perhaps leading to formal negotiations. We hope that this initiative can begin in the near future, and that

the flow of oil to the SPR can be resumed promptly after the cessation of hostilities.

An SPR oil acquisition arrangement with an oil producing country could provide economic and financial benefits to the nation as a whole. Specifically, we may be able to take advantage of unique opportunities created by the fact that several major oil exporting nations have production capacity excess to current needs. Both the exporting nations and the U.S. could benefit from having this oil stored in the SPR. The in-kind fee approach in S. 341 would require filling the SPR at substantial cost to importers, and at a high economic cost to the Nation, rather than taking advantage of an opportunity to provide for SPR fill at potential savings in initial outlays.

Even if S. 341 did not raise "taking" issues that involve a right to "just compensation," it would not reduce the overall economic cost to the nation, and all of the difficulties of a traditional dollar oriented tariff would attend its application. Before a new import tariff is considered, the Department should be given a full opportunity to utilize its new authorities and its existing budgetary authority to restart the fill of the SPR.

Earmarking

The Department also opposes the provisions of S. 341 as they relate to the SPR because the revenues from the tariff are earmarked for a specific purpose. This earmarking is somewhat obscured by the fact that the tariff is to be collected in-kind rather than in the form of money. Nevertheless, as a general principle, revenues coming to the Government should be credited to the general fund and expenditures should be determined by the Administration and Congress through the appropriations process. If the tariff were to be set at a rate of 720,000 barrels of oil per day, with an average value of $20 per barrel, the value of the tariff would be over $5 billion per year. We believe that resource flows of this scale should be subject to the annual budget process.

Disruption of Business Relations

While the acquisition of crude oil for the SPR frequently involves traders, the acquisition of refined products by the Defense Fuel Supply Center (DFSC) is a process that involves dozens of companies providing high quality specification products. Jet fuel accounts for approximately 77% of military fuel use, and

military grade fuel may require deicers and may be different from ordinary jet fuel in other aspects. The DFSC is a large, specialized, and experienced organization which has developed a strong institutional relationship with virtually every refiner in the United States. Replacing the DFSC competitive solicitations with an in-kind fee administered by DOE would jeopardize a proven supply system capable of responding effectively when a military situation develops requiring large amounts of extra fuel. A regulatory system could simply not compare to the time-tested system developed between the Defense Fuel Supply Center and its contractors.

Comments on Provisions for Increasing Access to the OCS

As an addendum to this testimony, the Committee has requested that the Department of Energy comment on provisions for increasing access to the Outer Continental Shelf. Our comments will only address the energy aspects of this provision and will focus specifically on initiatives called for in the NES. The Department of the Interior, Mineral Management Service testimony will address the provision in more detail, specifically its revenue sharing and budgetary aspects.

Opening certain areas of the OCS is a key element of the NES's goal of reducing vulnerability to oil supply disruptions. The OCS is currently a major source of domestic oil and gas and has the potential to increase its future contribution to the nation's oil and gas reserves. It may contain just over one quarter of undiscovered, economically recoverable, U.S. oil resources. Already, OCS production wells supply 25 percent of the nation's natural gas supplies, and estimates of the total economically recoverable, undiscovered gas resources range between 44 and 114 trillion cubic feet. Natural gas presently accounts for almost 70 percent of the hydrocarbons produced from the OCS.

The NES proposes increased access to areas of the OCS under strict environmental safeguards. Specifically, the NES recommends that OCS areas currently under congressional moratoria (except those also subject to the President's June 1990 deferral), along with those now available for leasing, be considered by the Secretary of the Interior in formulating the new 5-Year OCS Program for 1992-97.

The NES does not change the status of several OCS areas that were included in the President's decision in June

1990 to defer leasing of tracts in certain areas. The President directed that DOI assess in greater detail the extent of the oil and gas resource base and the environmental effects of developing these areas. DOI's Minerals Management Service will conduct these studies. Their results will be used to make environmentally sound decisions on whether and in what manner the deferred areas could be made available for leasing when the Presidential restrictions expire.

We believe the NES provisions, coupled with the recently issued proposed OCS Natural Gas and Oil Resource Management Program for 1992 - 1997, reflects the Administration's commitment to high standards that will ensure that marine and coastal environments are protected.

The environmental and safety record of the offshore industry for the last 20 years has been exemplary -- for every million barrels of oil handled today by offshore oil platforms or pipelines, less than 8 gallons are spilled into coastal waters. However, diligence to clean, safe operations must remain the hallmark of any comprehensive approach for doing business in the oceans.

The DOI proposal, we believe, meets this test. It takes several actions to integrate better environmental information, allow for regional considerations, and provide for more effective consultations between the Federal Government and the states and localities. It calls for increased acquisition and dissemination of quality scientific information, including more environmental studies, more geologic studies and more research on new technologies to mitigate environmental impacts of offshore development.

In short, opening OCS areas referenced in the NES could lead to extremely important new domestic oil and gas supplies. The average estimate of recoverable resources from these areas is about 3.1 billion barrels of oil and 9.4 trillion cubic feet of natural gas. There is a 5 percent chance of finding 7.5 billion barrels of oil.

As the NES states: "Increased production from the OCS would increase economic activity, provide specific regions with additional energy resources, reduce the rising level of oil imports, and provide billions of dollars to the Federal Treasury through bonuses, royalties and rental payments."

Mr. Chairman, this concludes my prepared statement, and I will be happy to try to answer any questions you may have.

The CHAIRMAN. Mr. Williamson.

STATEMENT OF BARRY A. WILLIAMSON, DIRECTOR, MINERALS MANAGEMENT SERVICE, DEPARTMENT OF THE INTERIOR

Mr. WILLIAMSON. Thank you, Mr. Chairman. Good afternoon. Mr. Chairman and members of the committee, thank you for the opportunity to testify. I, again, would like to submit my testimony for the record.

The CHAIRMAN. Yes. I might say, we received that statement only at, I think, 1:30 this afternoon.

Mr. WILLIAMSON. Yes, sir. We apologize for that.

The CHAIRMAN. We understand the part that OMB has played in that, but the President himself has made national energy policy a high item. Senator Wallop and I have met with him twice, and maybe more times than that. We have met with the Secretary of Energy many, many times. I know the administration is giving it very high priority.

I wish you would get the message to OMB that to come in at the very last minute and submit testimony which we do not have time to read and we do not have time to go over simply will not do. I mean, somebody is not getting the message over there in OMB. I know it is principally because of them that you did not have the testimony here before, but I wish you would deliver that message, or if it is in your shop, then take it to heart.

Senator WALLOP. Mr. Chairman, if you would, I am persuaded that it is not in Mr. Williamson's shop. But I hope that at one of these hearings the administration will not live by the criteria which we have given them ample warning of that we just simply reject the witness' testimony.

And we will accept a prepared statement, and when they are prepared to come back and deliver it within the time frame, then we will do that. You should not be embarrassed, but damn it all, OMB should be embarrassed. I think it is outrageous and inexcusable.

Mr. WILLIAMSON. Thank you, Mr. Chairman. The OCS is a vital part of our national energy security and our National Energy Strategy.

Title VIII of S. 341 has two relevant sections to OCS. One is coastal impact assistance, and the other is a report to the President regarding the availability of OCS areas for leasing and development. We commend the Chairman and the ranking member for including impact assistance in their proposal. Indeed, the President did mention this in his June 26 decision, and we strongly commend you for your work in this area.

The Department strongly supports impact assistance to coastal States and communities, and would like to work very closely with this committee to see the proposals established. The Department is well along in its process of preparing its own impact assistance proposal in keeping with that decision of June 26.

S. 341 contains some elements we believe are very important to the coastal impact assistance program. Number one, the bill creates an important link between OCS activities and the receipt of the assistance. Additionally, assistance is provided to the coastal

States within 200 miles of a leased track and, additionally, the State is to give priority in spending the funds to the subdivisions, the political subdivisions impacted by the OCS development.

However, we believe that the local communities should receive a direct portion, be guaranteed a direct portion of those revenues. They are best able to identify both their needs and the best use of the funds within their own jurisdiction.

There are some areas of the bill that we do not support. I would like to identify some if I could. One is the projection of the seaward lateral boundaries in order to implement the distribution formula. That gives us a lot of concern simply from the standpoint that we worked with this in the past on 8(g), which goes out to 3 miles.

It has been very difficult—well, 6 miles if you consider the first 3 miles owned by the State, and 3 additional miles. It has been very difficult to operate. If you draw boundaries out to 200 miles, it creates an extraordinary controversy and litigation; extreme problems with that.

Additionally, States would be paid twice for leases in the 8(g) area. 8(g) provides 27 percent—currently 27 percent under 8(g) and 37.5 percent under this bill. Once you consider that, with tax deductions the top corporate rate would be approximately 34 percent, and the Treasury would receive approximately 2 percent of the revenues from those leases. So we would suggest starting right after the 8(g) area as opposed to within the 8(g).

The bill's formula also gives a little too much weight to leased acreage. I think the most important parts of the OCS is the production acreage. The leased acreage—very little production—expiration production happens on leased acreage. It narrows the process down to a small amount of the leased acreage's production, is what you have production on. About 0.5 percent of the OCS actually has production on it.

The CHAIRMAN. You know, this formula comes directly out of coastal energy impact legislation and the Coastal Zone Management Act, which is an act which worked its way through the Congress after many long, arduous weeks. I was involved in that. It seems to me that, you know, you can criticize it for various reasons, boundaries, et cetera, but it is an act. And if it is not good enough, then the least you can do at this late hour is come up with an alternative. Do you have some alternatives to suggest?

Mr. WILLIAMSON. I will walk you through some of those.

The CHAIRMAN. I mean, do you have legislation?

Mr. WILLIAMSON. No, we do not. We are working our proposal, and we have sent it over to go through intergovernmental review right now. We hope to get it to you—get you some ideas soon. But I do not have a proposal.

The CHAIRMAN. Soon would be—do you have any idea?

Mr. WILLIAMSON. I would hope sometime this spring.

The CHAIRMAN. We are going to be in mark-up in spring.

Senator CRAIG. Mr. Chairman, he is trying to tell you it is at OMB. [Laughter.]

Senator WALLOP. Let me just say that if the administration wants to be a player, and I certainly hope that they do, then they are going to have to accelerate a process. I mean, the President has given us and the Nation a challenge to get on with the develop-

ment of an energy strategy policy. We have taken him at his word and are fully aware of the time frame which the Chairman and I have said that we wanted to operate within.

So if they want to be a player, they are going to have to accelerate that process. They are entitled to be. I would be happiest if they were, but I do not see any way in which we can slow down simply to wait for a process that has no definable end and cannot be guaranteed.

Mr. WILLIAMSON. I would agree. I think we do need to accelerate our process.

The CHAIRMAN. You know, the President personally endorsed help for our coastal areas in June of last year. He personally endorsed it and said he would be sending up legislation.

Mr. WILLIAMSON. He was actually the first President to do that, to my understanding.

Senator WALLOP. He has not done it yet. He just made the promise.

Mr. WILLIAMSON. We will get to you if we can.

Two or three other points that I would like to make. 341 would include leases out to 200 miles, the same proportions we would, regardless of their closeness to the shoreline. We would indicate all tracts should not have the same potential for impacts and would have a lessening as you go further out. We would like for you to look at that.

Also, new revenues—only new revenues are to be shared. The distribution is based on production and landed volumes which are currently derived from preexisting activity. The impact assistance program should be a forward-looking program, and base the amounts of funds and the distribution of those funds on new development.

Additionally, I think the most important thing that gives me concern about this—and I think we could work together with this committee—the bill defines new revenues to include royalties from new wells as opposed to newly developed leases. Under our accounting and financial administrative process, that would put tremendous burdens on the Federal Government.

Our accounting systems are based on a lease-specific basis as opposed to a well-specific basis. The bill would create disputes over how to treat specific wells, such as injection wells or shut-in wells, and you get into some other interesting issues, and it would be very difficult for us from an administrative standpoint.

On the reporting requirements, section 8002, calls for the President to report to Congress on the availability of OCS areas for leasing development and production. The report considers production potential, historical production, the potential of those areas considered in the President's June 26 decision to reduce imports from OPEC and the Middle East. And also, it would have a comparative analysis between oil spills and oil-spill risks from OCS production vis-a-vis tankers. And I would love to get into that discussion. The report also calls for a proposal on the environmental information public comment process and on the analysis of compensation provisions of the OCS.

The section highlights the importance of the OCS in our efforts to achieve energy security. In 1990, imports ranged about 42 per-

cent and the NES proposals would project increases to 57 percent by the year 2000. Conservation and efficiency are needed; however, they cannot replace these imports alone. So we should not foreclose options to increasing domestic production.

All these issues have been considered by the President in arriving at his June 26 decision, and will be considered in preparing our draft proposed 5-year plan. Indeed, last month the Department released its draft proposed Outer Continental Shelf natural gas and oil resource management program for the period 1992 to 1997. The program tailors our activities to meet the needs of the States and local communities and other affected groups, as well as the national energy needs.

Also, we created a new area evaluation and decision process that would allow for the pace of decisions to be based on collection and analysis of information and on enhanced consultation with States, communities, and other concerned parties. The Department will continue to examine the questions raised in section 8002 during the 2-year process initiated by the release of the draft proposed program, and will be happy to provide this information in a separate report.

Mr. Chairman, this completes my testimony. I would be happy to answer any questions.

The CHAIRMAN. Thank you very much, Mr. Williamson.

[The prepared statement of Mr. Williamson follows:]

Testimony of
Barry A. Williamson
Director, Minerals Management Service
Department of the Interior

Before the
Senate Energy and Natural Resources Committee
March 11, 1991

Good afternoon Mr. Chairman and members of the Committee. Thank you for the opportunity to testify on S. 341, that portion of the National Energy Security Act pertaining to Outer Continental Shelf (OCS) issues. The OCS is a vital component of any energy policy.

Title VIII of S. 341 has two sections, the first of which proposes a coastal State and community OCS impact assistance program and the second of which requires a report from the President regarding the availability of Outer Continental Shelf areas for leasing, development, and production of natural gas and oil. The Administration supports the concept of impact assistance; however, we have some differences with the proposals contained in S. 341 which I will discuss later.

In addition, we have been advised by the Office of Management and Budget that section 8001 of S. 341 would authorize direct spending and therefore be subject to the annual "pay-as-you-go" requirements of the Omnibus Budget Reconciliation Act (OBRA) of 1990. Preliminary Department of the Interior estimates of this direct spending, which cover only the OCS in the Gulf of Mexico, total over $600 million for activities over the next four

years (FY 1992 through FY 1995). Because the new direct spending in the provisions is not offset, the Administration must oppose them. The Administration opposes all new direct spending provisions unless they are offset consistent with the terms of the budget agreement.

Despite these comments, we commend the Chairman and Ranking Minority Member for including impact assistance from Outer Continental Shelf development in their proposed National Energy Security Act. The Administration strongly supports impact assistance to coastal States and communities and would like to work closely with the Committee to see such a proposal established.

As part of his June 26, 1990, decisions concerning the program, the President directed the Department "to prepare a legislative initiative that will provide coastal communities directly affected by OCS development with a greater share of the financial benefits of new development." This initiative is being prepared.

In constructing this proposal, MMS will be guided by four principles: (1) the size and distribution of payments should be directly linked to OCS activities; (2) local communities, as well as States, should be direct recipients of assistance; (3) the program should be appropriate for all areas of the nation, but allow the States some flexibility to deal with their own unique circumstances; and (4) the program should be administratively manageable.

I would now like to turn to a more specific discussion of S. 341. The proposal contains several elements that we believe are important to a coastal impact assistance program. First, the bill creates a link between Outer Continental Shelf activities and the receipt of assistance funds. Since impacts would only be related to Outer Continental Shelf activities, we believe that assistance should also only be related to those activities. Second, the bill would provide impact assistance to coastal States within 200 miles of a leased tract, a concept with which we also agree.

The Department also supports the priority given by the bill to subdivisions of the States that are socially or economically impacted by Outer Continental Shelf development. However, we believe that local communities should be guaranteed to receive some portion of Federal revenues directly, without having to pass through the filter of State government. Those communities are best able to identify both their needs and the most appropriate uses for assistance funds within their jurisdiction.

There are also several significant elements of the Committee's impact assistance proposal that we oppose. First, the proposal calls for the distribution of assistance funds to States according to a formula that requires the projection of seaward lateral boundaries out to 200 miles from the coast line. Our experience has proven that drawing such boundaries over only a few miles, for purposes of distributing funds under section 8(g) of the Outer Continental Shelf Lands Act, is very difficult. We fear that projecting them out to 200

miles would create extraordinary controversy and litigation.

Second, this bill would result in States being paid twice for leases subject to section 8(g) of the Outer Continental Shelf Lands Act. Section 8(g) provides the States a 27 percent share of revenues from leases that are located within 3 miles of the States' seaward boundaries. Under the provisions of S. 341, the States would receive a 37½ percent share on top of their 8(g) payments. When one considers that all lease payments are tax deductible, and the top corporate income tax rate is 34 percent, this means that less than two percent of lease revenues would accrue to the Treasury from leasing tracts subject to 8(g).

Third, the distribution formula gives too much weight to the amount of acreage leased. Most leased tracts are never explored, let alone developed, so the amount of leased acreage may not be the best proxy for impacts. Larger weight should be given to actual production of oil and gas in determining the distribution of funds.

Fourth, most of the distribution of the fund is based on the location of a lease with respect to arbitrary boundary extensions. Clearly, for a lease that is equidistant from several States, each State would bear some potential impact from activities on that lease. It would not be equitable to direct assistance generated from activity on that lease to a single State.

Fifth, S. 341 treats all leases within 200 miles of the coast identically, regardless of whether they are adjacent to State waters or 200 miles from shore. All tracts do not have the same potential for impacts, and an impact assistance program should reflect some of these differences.

Sixth, the bill bases assistance on a hybrid of new and existing development. While only new revenues are to be shared, the distribution is based largely on production and landed volumes, which are currently derived from pre-existing activity. We believe that an impact assistance program should be forward-looking and, therefore, that both the amount of funds and the distribution of funds should be based solely on OCS activities subsequent to enactment.

The bill defines new revenues to include royalties from new wells on leases already in production, rather than just from newly developed leases. This distinction greatly increases the Federal Government's financial and administrative burdens. Accounting is done on a lease-specific basis, rather than a well-specific basis. This proposal would also create potential disputes when wells are converted to injection wells or are shut-in.

Turning to section 8002, the bill calls for the President to report to Congress on the availability of areas for leasing, development, and production. The report would consider such items as the production potential of Outer Continental Shelf regions, historical production on the Outer Continental Shelf, the potential of those areas covered by the

President's June 26, 1990, decision to reduce dependence on imports from the Organization of Petroleum Exporting Countries (OPEC) and the Middle East, and a discussion of oil spills and spill risks from both Outer Continental Shelf production and vessels carrying oil imports. The report also calls for a proposal on the environmental information and public comment process and an analysis of compensation criteria under the cancellation provisions of the Outer Continental Shelf Lands Act.

This section centers on a vital issue -- the importance of Outer Continental Shelf production in helping the United States achieve energy security. As domestic production has declined, the nation's reliance on imported oil has grown. In 1990, imported oil accounted for 42 percent of our domestic consumption, exceeding 50 percent in some months. The Department of Energy predicts that, without enactment of the National Energy Strategy proposals, imports will increase to 57 percent of domestic oil use by the year 2000. Improvements in conservation and efficiency alone cannot guarantee energy security, so it is important not to foreclose options for increasing domestic production.

Last month, the Department released the Draft Proposed Comprehensive Outer Continental Shelf Natural Gas and Oil Resource Management Program for 1992 through 1997. This program tailors OCS activity to the needs of States, localities, and other affected groups, as well as to national energy needs. It also creates a new Area Evaluation and Decision Process that will allow the pace of decisions to be based on collection and analysis of information and on enhanced consultation with States, coastal communities, and

other concerned parties. The Draft Proposed Program's release was the beginning of a process that will involve extensive analysis and public consultation. Throughout this process, the Department will continue to examine the questions raised in section 8002.

Mr. Chairman, this completes my prepared statement. I would be happy to answer any questions that the members of the Committee might have.

The CHAIRMAN. Mr. Gentile, my dealings—in fact, this committee's dealings with administrations on SPRO have always been one characterized by lip service in practice and actual sort of intransigence in practice. And that goes back to the Carter administration; that goes to the Ford administration; that goes to the Reagan administration; and now, unfortunately, to this administration. The reason is that presidents do not seem to see the SPRO as their problem. I mean, they like to have it there to use, but they never see it as their problem.

Now, specifically, on your suggestions first of all on the administration, the small quantities, those things that you talk about. Now, surely that is not a big problem. You can do that by exchanges, by rulemaking. I mean, I just do not see a problem involved in every small importer having to deliver that particular oil to the SPRO. I mean, that can be worked out easily. We worked that out in many other kinds of administrative proposals.

As far as the objection on just compensation, I mean, we would be glad to listen to you, but we do not take that seriously. We just think there is no legal problem on that.

With respect to trade and economic objections, we are talking about maybe 4 cents a gallon here. The Japanese are just putting on that much or more to pay for their part of Desert Storm, and they were not really involved. And even with, I think it is $9 billion they are going to put up, I think that is far too little.

But for the small part that they are putting up, they are willing to pay for it through some kind of levy on imported oil. And I do not know why that raises this huge specter of trade and economic loss and all that. I mean, that just does not ring true to me. What does ring true is the administration coming on, putting up the same objections.

Now, when we get to the problem of leasing, you know, this administration was not anxious to do leasing. There were veto threats about leasing for months and, I guess, years here. You know, leasing was born right here in this committee, and we proposed it and we still strongly support it. And we had to drag the administration, I think, kicking and screaming into accepting it. We still are very strong for leasing, and I understand that we had a war going on and that was not a time for dealing with it.

I know you are getting ready to appoint an administrator to get out there and look at leasing. This legislation is not inconsistent with that. To the extent that we have oil to put in as leased oil, we can use this as either a supplement for that or as something to pay for the cost of the lease. After all, the leases will not be free of charge unless we get some people who are very, very anxious to help us.

Perhaps we could reduce the amount of the set-aside by the amount of the oil put into lease or—you know, there are various ways we could do that. This is not inconsistent with the lease. But what it does say is that we need to get the strategic petroleum reserve filled. We want the administration—we want all parties to come to this Energy Security Act table with a view to solving this problem.

Believe me, I am asked by everyone in this country, from the back roads to the corporate board rooms, why do we not have an

energy policy? Why do we have this terrible dependence? Why do we have three energy crises in 18 years? Why do we have to go to war over energy? You know, the repetition of question after question after question.

And every time you put up a way to solve the problem, people come up with some objection to it. Oh, it is going to bankrupt us at 4 cents a gallon. You know, it is going to—we cannot define the boundaries right. Whatever we have done, the history has been people have said, do not do it that way. And they do not give us a good alternative.

Now, what we want to do is we would like to get the strategic petroleum filled. By "filled," I mean 1 billion barrels. We want to get a way to pay for it, because I am on the Budget Committee, I am on the Appropriations Committee, and I can tell you there is no money there for that. I mean, you are not going to get 300,000 barrels a day. You are not going to get 200,000 barrels a day.

And 300,000 barrels a day not too many years ago used to be our minimum. We really wanted to go for more than that. Now we are talking about—it seems to me this budget has, what, 60,000, 70,000 barrels a day, something like that. And that probably will not survive the budget process.

I hope you all will take another look at this, particularly as to how we might mail the leasing provisions and the set-aside provisions. Maybe we could reduce it to below 9 percent. Maybe we should take into consideration what Senator Chafee said about, if you let the Department of Defense have unlimited access to petroleum maybe they would use more than they needed to. Maybe we ought to put a cap on that. I do not know.

But I think this offers a way to get that SPRO filled and to pay for it without bankrupting people, without putting us at a really competitive disadvantage. But I think it is a real help. I hope you will go back and take that to heart. Do you have any comment on that?

Mr. GENTILE. Yes, Mr. Chairman, I will take that back and take that message back and I would say, we do recognize the committee's lead on the leasing provisions. And although the administration may have been somewhat reluctant in the past, we are actively working that issue and hope to have some good suggestions along those lines sometime in the near future.

But we have taken that very much to heart. It is reflected in the budget, it is reflected in the work that has been going on, and yes, Desert Storm did slow us down a little bit. But not too much. We are actively working that issue and we will be coming back to you with that.

And I will take these other comments back. I would only say that historically, the administration has been opposed to import fees and taxes that could be seen as causing problems under the GATT and under the Free Trade Agreement. However, I will take this back.

The CHAIRMAN. Well, you know there is the national security exemption and surely, we have just proven that the Strategic Petroleum Reserve is important to national security. I mean surely, that much is clear under the act and if it is not, then I am not anxious

to vote for another trade bill. In fact, I do not much like that on on Mexico anyway.

But we always thought there was a national security exemptior Well, I know there is, and this sort of fits within that. Maybe we d not need 9 percent of this leasing program works. But why do yo not find a way to help us make this thing work.

And you know, just because people have been traditionally op posed to it, I mean, this is not your old $5 oil import fee or $10 oi import fee. This is a very modest security hedge for this country a a time when we needed a little help.

So I wish you would help us sell this thing. I mean, we need a policy. Senator Wallop and I and other members of this committee I think other members of the Congress are dead serious abou doing something about energy policy this time, and it is going t take some compromise and melding of interest here. And I jus think we can get this thing done.

Senator Wallop.

Senator WALLOP. Thank you, Mr. Chairman. I hear, and I an sure the chairman hears as well, the counsel against creatin something that is so complex in its delivery that it actually im pedes the security and capabilities of the country to utilize th energy resources that it has. That is not what we are after. If there is a better way of achieving it, we would be happy to hear it.

I understand that level of complexity. I do not understand th testimony that the payment in kind is unconstitutional. And I jus ask you, why it would be unconstitutional in the case of an impor surcharge, but it is not unconstitutional when you are dealing with royalties under the Mineral Leasing Act.

Mr. GENTILE. I cannot answer that, Senator. I will be happy t have our attorneys try to answer that question. Not being an attor ney, I do not even want to get into that issue if I can avoid it.

Senator WALLOP. I do not know that we would want to confuse i with an attorney. [Laughter.]

But it just does seem that we have done one thing and lived with it quite happily, and everybody seems to think that it works. Then on the other hand your concern seems, if you will forgive me, as something in the nature of a contrivance. I really just echo what the chairman has just said, that we want to try to find some way that is effective to take care of the national needs of the country and to develop a policy.

We do not want to go back to a complicated scheme of entitlements. That is not what is on my mind, for a certainty, and I cannot believe that it is on Senator Johnston's or any oil State Senator's mind because it did not work, and it did not help the country, and it did not solve the problems that it set out to. But something out there must be available to us to address these problems.

One other question, considering the present international oil supply and Federal budget constraints, would the Department reasonably expect to be able to obtain substantially more crude for the SPRO, at this time, through the leasing program compared to outright purchases?

Mr. GENTILE. We are looking at that right now. I hope to have a report up here very shortly. We have to be very careful how we would structure a lease. There are all kinds of different issues

here. There are domestic taxation issues. There are international issues and we are now finalizing some of those options. We are hoping to get back here in a very, very short period of time with some of those.

Senator WALLOP. I hope so, too, for the very simple reason that if there was a moment in time to be taking advantage of it, it would be useful not to be still making decisions and letting that moment pass into another phase. I think you are very much on the threshold of running that risk right now.

I have not got a lot of questions about the leasing thing because of the time constraints on our ability to review your statement.

I would ask, Mr. Chairman, that we be able to submit questions for the record.

The CHAIRMAN. Of course.

Senator Akaka.

Senator AKAKA. Thank you very much, Mr. Chairman.

Mr. Gentile, in the event of severe cut-off of oil to Hawaii, studies have determined, as I said in my testimony, that the minimum delivery of the SPR to Hawaii is 53 days. This exceeds our average inventory by 23 days. And DOE has maintained that in the event of calamity, which disrupts oil supplies to Hawaii, Hawaii would receive its oil from tankers already "on the high seas."

This means that tankers will be diverted to Hawaii to supply its needs. I have problems with that assumption, and I think it is inaccurate in reaching this conclusion. First, more and more of our tankers sail under foreign flags. This means that they respond to not our Nation's command, but to foreign governments and surely not to the Department of Energy in times of an emergency.

Second, Hawaii has a number of constraints that limits what oil we can accept. One is the size of the tankers that come to deliver oil there. And the other is a type of oil and all utilities can only burn low sulphur, sweet, what we call sweet crude.

And finally, we have not been able to determine where hostilities break out, in case that is a disruption, and we can use case in point, that we could not anticipate the invasion of Iraq when it did happen and therefore, would have difficulties in anticipating any hostilities in the break out.

Despite these facts, Mr. Secretary, do you still adhere to your theory that in the event of a cutoff of oil to Hawaii, Hawaii will be served by tankers on the high seas? Do you think that this is still what DOE would recommend?

Mr. GENTILE. Yes, Senator, I do. I think that it is important to understand that this concept of the oil exchanges, the oil market works on this basis of exchanges. And I think in the most recent crisis, that was well pointed out, the fact that many exchanges did occur in that recent crisis and we did not see those shortages occur because there was a lot of exchanging going on.

In terms of the normal working of the SPRO into the markets, because of these exchanges, even though Hawaii would not get wet barrels from the SPRO, Hawaii would have access to those exchanges that are out there on the open seas that are occurring.

In terms of the product, I believe you have, I think two refineries in Hawaii. One uses an Alaskan north slope crude and the other

uses, I think, the preferred Indonesian light. It is easy to supply Hawaii from Alaska, not a major issue.

In terms of the light sweet crude that comes out of Indonesia, I am not sure of the technical capability of the refinery, whether it can use a more sour crude. There may just be an issue of preference. But what I would say is that I think that Hawaii needs to approach the energy situation much like we in the United States need to approach our energy situation. And that is by looking at a comprehensive energy strategy.

Last year, the Congress did provide funds to do that. We were actively working on a study with the State of Hawaii and the energy office to look at that strategy. I think that Maurice Kaiaa is coming to town this week to further those discussions. That is, that effort is underway now and I think it is a 2- to 3-year effort.

And clearly, when the Secretary visited Hawaii, that was of major interest to him. It is clear that it is not just an issue of oil, but a many, many faceted issue of energy. So we do feel that we can supply Hawaii, both out of Alaska, and because of the exchange program that the markets have, and we feel that the existing studies going on on Hawaii, should be ample to take care of those problems.

Senator AKAKA. Do you have in your plans that Hawaii would be provided SPR from the Gulf region rather than from Alaska?

Mr. GENTILE. Yes. What I am getting at is, when is—if there is a shortage and what barrels are released from the SPRO, oil could be easily diverted from other areas through exchanges. That is a normal activity in the oil markets. And that is what occurred in the last few months.

Senator AKAKA. Thank you very much, Mr. Chairman.

The CHAIRMAN. I wonder, Mr. Gentile, if you might give us, in writing, a plan to take care of the needs of Hawaii. We have been working with Senator Akaka to be sure that those are taken care of, not just on a vague promise, but on a specific plan. If it can be done without having a product reserve or an expensive kind of reserve in Hawaii, but still gives them total protection, I think that would solve the problem.

But, I think we on this committee, and I know Senator Akaka, want something more than something vague. So if you can give us a written plan on that, we might endorse it in this legislation or take other steps to ensure the viability of their supply.

Senator AKAKA. Mr. Chairman, I thank you for that. I certainly would ask for that also. And also in the plan, I would like for you to give us an idea for improving Hawaii's access to the central reserves in case of disruptions in Hawaii.

Mr. GENTILE. My understanding, Mr. Chairman, and also Senator, is that the issue is more one of crude and not refined product. My understanding is that there is not available excess storage capacity of refined product and I think the issue centers around crude oil.

Senator AKAKA. That is correct. We use about 90 percent crude.

The CHAIRMAN. But if you would do that for us, we would appreciate it.

Senator Craig.

Senator CRAIG. Thank you, Mr. Chairman. I have no questions of the gentlemen.

The CHAIRMAN. Gentlemen, thank you very much.

Next, we have a panel on the Strategic Petroleum Reserve composed of Denise A. Bode, who is president of IPAA, and John M. Arnold, who is with Petroleum Products Corporation of Harrisburg, Pennsylvania, appearing on behalf of the Petroleum Marketers Association of America. Gentlemen. Excuse me, you are not a gentleman.

Mr. Arnold.

STATEMENT OF JOHN M. ARNOLD, ON BEHALF OF THE PETROLEUM MARKETERS ASSOCIATION OF AMERICA

Mr. ARNOLD. Thank you, Mr. Chairman. Good afternoon Mr. Chairman and members of the committee. We have submitted a written testimony, and with your permission I would like to just respond with a brief oral summary.

The CHAIRMAN. Yes, please do.

Mr. ARNOLD. Thank you. My name is John Arnold. I am president of Petroleum Products Corporation located in Harrisburg, Pennsylvania. We are a four-generation family business in its 67th year. I am here today representing the Petroleum Marketers Association of America.

PMAA is a federation of 43 State and regional trade associations which represent 10,000 small, independent marketers of petroleum nationwide. Our members sell almost one-half of the gasoline, three-quarters of the heating oil, and over 60 percent of the diesel fuel consumed in the United States annually. And 89 percent of the companies we represent are classified as small businesses.

I want to begin my remarks today by thanking the chairman and the committee for holding this hearing. And we appreciate the opportunity to respond on our perspectives of the Title VII Strategic Petroleum Reserve provisions of S. 341.

We applaud the chairman's efforts to devise a comprehensive, long-term energy plan, and overall, our association believes that S. 341 does an admirable job in putting together the elements of an energy policy, which, if enacted, would serve our Nation well.

We strongly believe that to address our Nation's energy problems, we must take a two-prong approach. First, we must encourage and seek new sources of all energy supplies, both in this country and abroad.

Secondly, we must reduce the demand for all energy sources through a series of conservation and efficiency measures.

We support energy efficiency and use in buildings. We support energy efficiency in energy-intensive ihdustries in governments and transportation, and we also strongly support leasing of the ANWR for exploration and development.

PMAA has been a long-term supporter of the strategic petroleum reserve. We think this guards against temporary disruptions of physical supply, and yields psychological comfort. We believe the benefits of the SPR could be enhanced with a regional, refined product reserves, as legislated last year.

The fact that the Government has demonstrated an ability and willingness to use the SPR, together with a refined product regional SPR, could have profound effects in future crises.

PMAA supports an increased filling rate of funding built up through import set-asides, however, as fundamentally unfair and will ultimately work against the goal of energy efficiencies. This program will increase the cost of importing petroleum and is an imposition of an oil import tax under a slightly different name.

We support oil leasing to fill the SPR. We support increasing domestic sources of crude. We support diversifying foreign supply and using energy more efficiently. The question of future energy security is of increasing importance to all of us, particularly our members.

PMAA views the SPR import set-aside program as a well-designed oil-import tax, but study after study shows oil import taxes bring negative consequences, in terms of economics, equities, and efficiency.

Import taxes cause economic dislocation and have uneven distributional impacts among income groups, geographical regions, and industrial sectors. Oil import taxes increase the cost of petroleum and reduce consumer income and dampen economic activity. In addition to being inefficient, import fees are inequitable with a disproportionate impact on certain geographical regions, consuming groups, and industries. In our State in particular the rural areas, the areas where a lot of home heating oil is used, will be impacted negatively by such a device, and our energy-intensive industries including petrochemicals, paper, airlines and trucking, and heavy manufacturing, will have a negative impact.

Increased import costs cause distortions in petroleum industry, which can threaten our independent marketers, our members who buy from refineries which import crude level, will be at a competitive disadvantage. Energy security is a public good enjoyed by all. Any costs should be distributed as evenly as possible.

Now, Mr. Chairman, we do believe there are better ways less destructive than an oil import tax to accomplish the objectives. We believe that inducing domestic exploration and production is a good thing to do. We think it can be done through Federal and State Governments' reducing severance taxes, through extending the oil depletion allowance, and increasing intangible drilling credits.

We think of the United Kingdom and the manner in which they handled development of the North Sea, where the production and development costs of those wells are not—the income from those wells is not taxed, until those costs are developed.

Finally, we support opening more Federal lands to exploration, we strongly support leasing the ANWR.

In conclusion, our association asks the committee to consider all aspects of title VII proposals, and in so doing realize that title VII should not be a part of what is otherwise very good, comprehensive energy policy, and that finishes my remarks.

The CHAIRMAN. Thank you very much, Mr. Arnold.

[The prepared statement of Mr. Arnold follows:]

Statement of

Mr. John M. Arnold

On Behalf Of

The Petroleum Marketers Association of America

Before the

Committee on Energy and Natural Resources

United States Senate

On

S. 341, The National Energy Security Act

Washington, D.C.

March 11, 1991

1120 VERMONT AVENUE, NW • SUITE 1130 • WASHINGTON, DC 20005 • (202) 331-1198

Good morning Mr. Chairman and members of the committee. My name is John Arnold, and I am President of Petroleum Products Corporation located in Harrisburg, Pennsylvania. The Arnold family has been supplying heating fuels for over 70 years. We also sell motor fuels.

I am here today representing the Petroleum Marketers Association of America (PMAA). PMAA is a federation of 43 state and regional trade associations which represent some 10,000 small independent marketers nationwide. These marketers sell almost one-half of the gasoline, three quarters of the heating oil and over 60 percent of the diesel fuel consumed in the U.S. annually. Eighty-nine percent of the companies PMAA represents are classified as small businesses under the U.S. Small Business Administration (SBA) size standards.

I want to begin my remarks today by thanking Chairman Johnston and the Committee for holding this hearing, and I appreciate this opportunity to offer the perspectives of petroleum marketers on Title VII, the Strategic Petroleum Reserve (SPR) provisions of S. 341, the National Energy Security Act of 1991.

A BALANCED NATIONAL ENERGY POLICY IS ESSENTIAL

PMAA applauds the Chairman's efforts to devise a comprehensive long-term energy plan. Overall, PMAA believes S.341 does an admirable job in putting together the elements of an energy policy which, if enacted, will serve this nation well. We strongly believe that to address this nation's energy problems, we must take a two-prong approach. First, we must encourage and seek new sources of all energy supplies both in this country and abroad. Second, we must reduce the demand for all energy sources through a series of conservation and efficiency measures.

PMAA particularly supports the provisions of S. 341 which seek to improve energy efficiency in buildings, energy intensive industries, the government, and the transportation sector. We also strongly support the provisions of S.341 which would allow for exploration of domestic oil including leasing of the Arctic National Wildlife Refuge (ANWR) in Alaska. Such provisions seek to address the long-term consequences of increased consumption of scarce energy resources.

THE SPR IS IMPORTANT TO ALL AMERICANS

PMAA is a long-time supporter of the SPR as a critical policy tool to mitigate the negative impacts of temporary supply disruptions. The Persian Gulf crisis served to underscore the importance of the SPR both in terms of providing physical supply as well as psychological comfort. Although SPR oil was ultimately not a huge factor in the overall supply picture, the fact that the government demonstrated its willingness and ability to supply SPR

oil to the market will have an immeasurable impact on the course of future crises or potential crises.

Thus, PMAA continues to support the SPR and the notion of increasing the reserve's fill rate from its current levels. However, funding a buildup of the SPR through the import set-aside program in Title VII of S. 341 is fundamentally unfair and will ultimately work against the goal of energy security. By requiring importers to provide the government with a percentage of their imported volumes for strategic storage, this program will increase the cost of importing petroleum; this is nothing more than imposition of an oil import tax to fund the SPR.

Since all Americans benefit from a strong SPR, all Americans should bear the cost of financing it. Because PMAA understands the fiscal constraints associated with raising the SPR to a billion barrels and increasing the fill rate of the SPR from current levels, we strongly support alternative means of financing that do not unfairly discriminate among individual citizens of the Untied States.

One of the measures we support in this regard is a viable SPR oil leasing program. It is our understanding that in September of 1990 the Department of Energy (DOE) was given statutory authority to enter into contracts to store oil owned by others in the reserve. Such a program would help to fill the SPR at a minimal cost to the Federal Government. As soon as practicable, DOE should move forward with negotiations with a number of prospective suppliers to lease oil for the SPR. Now that the Persian Gulf situation has been resolved, the oil Middle East oil producing allies of the United States may be more willing than ever to enter into these types of agreements.

OIL IMPORT TAXES ARE BAD ENERGY POLICY AND BAD ECONOMIC POLICY

The question of future security of supply is one of increasing importance. PMAA strongly supports the President's National Energy Strategy in its realistic approach to energy security issues. The Strategy reflects an understanding that the United States is one player in a complex and interdependent world crude oil and refined products market, and that oil will remain a critical fuel for the U.S. and its allies for the foreseeable future. Because this means that most industrialized countries will continue to import oil, our focus must be on how to increase domestic sources, diversify any foreign supply, and use oil as all as all energy resources more efficiently. Thus, it is not in our national interest to adopt policies which will impose high economic costs in the attempt to reduce imports.

Specifically, the NES states:

> Oil imports could be reduced substantially, depending on the level, type, and phase-in of subsidy, taxation, or mandate. But the cost would be very high--in higher prices to American Consumers, lost jobs, and less competitive U.S. industries. Moreover, ...these tax, subsidy, and mandate measures would not necessarily shield the U.S. economy from the effects of future world oil market disruptions, not even if the Untied States were to eliminate virtually all oil imports. The economic impacts depend more on price, as set by the world market, than on the level of our imports.[1]

Because PMAA views the SPR import set-aside program as a cleverly disguised oil import tax, the same sound arguments that have stopped this country from enacting such a tax previously are still applicable.

Study after study has shown the negative consequences of oil import taxes in terms of economics, equity and efficiency. Import taxes cause economic dislocation and have uneven distributional impacts among income groups, geographic regions and industrial sectors. To tie the SPR to such destructive legislation would be unfortunate indeed.

Oil import taxes increase the cost of petroleum, thus reducing consumer income and dampening economic activity. According to the Department of Energy, each $1 per barrel tax imposed will cost consumers some $4 billion per year in higher energy costs.[2] This obviously reduces the American standard of living as consumers will have that much less to spend on other goods and services.

Increased energy costs engendered by an import tax will also reduce the competitiveness of U.S. industries operating in world markets. In addition, U.S. resources will be diverted to the production of higher-cost domestic oil even though cheaper oil could be purchased on world markets, resulting in further economic inefficiency.

The end result will be to depress U.S. economic activity and to reduce the future potential of the economy. DOE estimates that a $5 import tax will reduce GNP by $15 to $25 billion. Estimates developed by Data Resources, Inc. (DRI) suggest that after the

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[1]U.S. Department of Energy, National Energy Strategy, February, 1991 at p. 5.

[2]U.S. Department of Energy, Energy Security A Report to the President of the United States, March, 1987.

first year of enacting a $5 tax, GNP would be reduced by an average of more than 1% annually for four years.[3]

Of course, reduced economic activity comes at the expense of jobs. DRI estimates that after four years of such a tax, employment will be down by 1 million persons. The depressing effects of an import fee will obviously have even more negative consequences at a time when the economy is already in recession.

The increase in energy costs brought by an import tax will also fuel inflation and have a permanent impact on U.S. price levels. According to DOE, a $5 fee will raise the Consumer Price Index by 1 to 2 percent. Even after the immediate inflationary effects are absorbed by the economy, however, the U.S. will be operating at a new, higher price level.

Import taxes also have negative international implications. They would be detrimental to our oil exporting allies, several of which have high levels of debt to already-troubled U.S. banks. In addition, import taxes would probably violate a number of international agreements, most notably GATT, and could encourage retaliation, which would have additional negative economic consequences.

IMPORT FEES HAVE UNFAIR DISTRIBUTIONAL IMPACTS

In addition to being inefficient, import taxes are also inequitable, having a disproportionate impact on certain geographic regions, consuming groups, and industries. For example, the Northeastern states, which are heavily dependent on heating oil, will bear increased heating costs. Rural areas which have a heavier per capita consumption of petroleum as a transportation fuel would also be hurt. Energy intensive industries, such as petrochemicals and paper, or those heavily dependent on truck transport will experience relatively more negative impacts than other industrial sectors.

Increased import costs will also cause distortions within the petroleum industry which could threaten the well-being of this nation's independent marketers. Many petroleum marketers buy from the refiners who are largely dependent on foreign crude oil to make gasoline, distillate fuels and other refined products. These refiners will be at a direct competitive disadvantage compared with the companies that refine their own domestic crude oil.

Theoretically, those companies utilizing domestic crude will increase their prices by the same amount as the tax imposed on importers. However, as I think recent history has clearly shown,

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[3]Data Resources, Inc. Review of the U.S. Economy, March 1987.

the petroleum marketplace does not always operate consistently with conventional economic theory.

In the retail gasoline business, for example, there is intense competition for marketshare. So intense, that at times the pure change to the retail motorist is less than the wholesale price to independent marketers at the terminal. In this environment, refiners that have their own domestic sources of crude oil supply will always be at a significant competitive advantage to those refiners, and the customers of those refiners, who must import their supply. I might add that this advantage is not earned by any inherent efficiency by the domestic company but rather a discriminatory government policy.

Energy security is a public good enjoyed by all. If the underlying purpose of this legislation is to promote energy security, then any costs associated with it should be as evenly distributed as possible.

AN OIL IMPORT TAX IS NOT THE BEST WAY TO HELP THE DOMESTIC INDUSTRY

PMAA believes there are better, less destructive ways, than an oil import tax, to induce exploration and production of domestic crude oil. The federal and state governments can encourage domestic oil activity by reducing severance taxes on crude oil, by extending the oil depletion allowance, and through increasing the intangible drilling credits. We could adopt a system similar to the one the United Kingdom uses in the North Sea. Under this system a well's production is not taxed until all the exploration and development costs have been recovered by the company. Currently the domestic oil industry carries the heaviest tax burdens of any industry and recent changes in the tax and law enactment of the Superfund tax increases that burden substantially.

Finally, as we previously stated, PMAA supports the opening of more federal lands for offshore drilling as well as the ANWR. PMAA also supports efforts to encourage production of all energy sources, not just oil, in this country and in countries outside the Persian Gulf.

These are just a few ways our domestic industry can be helped without hurting our country's fragile economy.

CONCLUSION

In conclusion, PMAA asks the Committee to consider all the consequences of the Title VII proposal, and in doing so conclude that such a proposal should not be a part of what is otherwise a very good model for a comprehensive energy policy.

PMAA appreciates this opportunity to present its views on this important legislation, and would be glad to respond to any questions you may have.

The CHAIRMAN. Ms. Bode, I want to welcome you to the committee. I think this is your first time to testify before this committee since you have taken the presidency of IPAA. You come very well recommended from Senator Boren, who is well regarded by everyone on this committee and off.

I know you are going to have a great career with IPAA. We wish both IPAA and you great success, because we very much agree with the great work that they do, and also their great chairman, who happens to be from Louisiana.

And so with that, Ms. Bode, please proceed.

STATEMENT OF DENISE A. BODE, PRESIDENT, INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA

Ms. BODE. Thank you very much.

Mr. Chairman and members of the committee, I am Denise Bode, president of the Independent Petroleum Association of America. I appreciate the opportunity to testify on S. 341, the National Energy Security Act of 1991, and the provisions of title VII, dealing with the SPR.

I would like to commend the chairman, Senator Wallop and this committee for taking on the task of developing a responsible energy policy.

The OPEC ministers are meeting today to determine our future prices and supply. IPAA agrees with you that it is time for the United States to set our own agenda. As you can see by my button, IPAA believes S. 341 can help us slip the grip of OPEN. IPAA represents independent crude oil and natural gas producers in all 33 States with oil and natural gas production. Independents drill the overwhelming majority of all U.S. wells, and find more than half of the Nation's new oil and natural gas reserves.

I have a longer statement that outlines in greater detail our views which I have submitted for the record, with your permission.

The CHAIRMAN. Without objection, it will be admitted into the record.

Ms. BODE. Let me summarize. We have an import dependence problem in the United States. We need a domestic strategy to deal with the problem.

Let me outline the problem as we see it, and our views on the solution. The United States has become dependent on foreign oil because it is cheap oil. However, the price at the gasoline pump does not tell the whole story. Inexpensive foreign oil has damaged our ability to produce oil in America. In addition, it limits development of alternative fuels and energy technologies and acts as an economic brake on energy conservation and efficiency investments.

Many of the gains made in the early 1980's toward a more responsible energy use and investment in alternatives were lost as a result of the OPEC cartel driving down the price. Foreign oil is not secure.

There have been six post-World War II crises over oil: in 1951, 1956, 1967, 1973, 1979, and most recently in Kuwait in 1990.

Foreign oil is the largest component of our trade deficit: over one-half of a trillion dollars during the last decade. Imports have also cost us jobs as the petroleum industry has moved overseas or

has been forced out of business here in America. Young people no longer go to school to become petroleum engineers. In my home State of Oklahoma, where 500 students a year graduated from petroleum engineering in the 1970's, only 17 graduated last year.

These facts lead us to conclude, as I am sure this committee has, that we need a strong domestic energy program, one that protects American interests first. We need to assure American consumers that there will be a supply of energy to run their cars, factories, and allow them the standard of living they now enjoy.

IPAA believes that a strong domestic policy should include the following elements: a healthy domestic petroleum industry, a strong SPR program, and a more diverse energy mix, including alternative fuels and conservation.

The healthy domestic industries are best protection. This industry is our biggest strategic petroleum reserve, but it is not like a faucet that can be turned off and on. It takes about 5 years to develop a property onshore, and 10 years to develop offshore properties, from the time you lease the property until you bring it on stream.

A strong SPR is also important as a ready, short-term source of oil to deal with disruptions or manipulations of foreign oil supply. A more diverse energy mix including alternative fuels and conservation are also important.

I have heard claims made that an increase in oil prices will cause problems for our economy. This is not necessarily true. Very likely, it will cause folks dependent on foreign oil to switch to alternative fuels. Natural gas, a clean and plentiful alternative to oil, is readily switchable, and is selling now at a BTU discount to oil.

We learned during the previous experiments in the 1970's with alternative fuels and conservation measures, that a Government mandate will not work. The only workable solution to diversifying our energy mix is the right price.

The solution proposed by S. 341, a strategic set-aside of imported crude oil, will increase by approximately 9 percent the cost of imported oil, and will act to stabilize the price of oil. IPAA supports the strengthening of the SPR program. To be sure, the concept is imperfect, but using SPR as a stabilizing oil security net is the critical result.

The SPR was intended to be used to prevent severe economic harm from potential oil supply disruptions. The only time it was used this past January, the effect it had was to provide a ceiling on oil prices. While we believe this is not the proper use of SPR oil, it did send a clear signal to oil markets, and the price came down.

Volatile oil prices make it virtually impossible for energy companies to make effective business plans for the future, and for other Americans to make decisions to implement conservation measures. The independents I represent are especially penalized by instability, because they have relied so heavily on outside investment for their exploration and development operations. All of their revenues come from the sale of oil under natural gas at the wellhead.

Financing has dried up as a result of the tax law changes in 1986, and an unhealthy banking industry. In last year's tax bill, the tax rate actually increased for unincorporated producers.

The most critical requirement for market stability is that any price increase must be sustained for a long enough period for it to be considered a long-term price trend. In the oil and gas business, this takes about 6 months to a year. Companies must be able to incorporate the new price expectations into their future budgeting and investment decisions before they will step up drilling.

In closing, Mr. Chairman, the IPAA recognizes the need and supports the maintenance of a strong strategic petroleum reserve, its judicious rather than arbitrary use, and the concept of a limited set-aside of imported petroleum and products. While the strategic petroleum reserve provides insurance coverage for the Nation in the event of a short-term supply interruption, if the premium costs were paid by imported oil, the end result could be a more sound and diversified energy mix.

If we have learned anything about our recent involvement in the Persian Gulf, the approach we take for the future can best be summed up in two words: buy American.

Thank you, Mr. Chairman.

[The prepared statement of Ms. Bode follows:]

INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA

STATEMENT OF DENISE A. BODE
REPRESENTING THE
INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA
AND

AMERICAN ASSOCIATION OF PETROLEUM LANDMEN
ASSOCIATION OF OILWELL SERVICING CONTRACTORS
CALIFORNIA INDEPENDENT PETROLEUM ASSOCIATION
COASTAL OIL AND GAS ASSOCIATION
EAST TEXAS PRODUCERS AND ROYALTY OWNERS ASSOCIATION
EASTERN KANSAS OIL AND GAS ASSOCIATION, INC.
ENERGY CONSUMERS AND PRODUCERS ASSOCIATION
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Before the
Committee on Energy and Natural Resources
U.S. Senate
March 11, 1991

Statement
Of The
Independent Petroleum Association of America
Before the
Committee on Energy and Natural Resources
U.S. Senate

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Mr. Chairman and Members of the Committee, I am Denise Bode, president of the Independent Petroleum Association of America (IPAA). The Independent Petroleum Association of America appreciates this opportunity to testify on S. 341, the National Energy Security Act of 1991, and the provisions of Title VII dealing with the Strategic Petroleum Reserve (SPR).

I would like to commend the Chairman and this Committee, as well as the President, for taking on the task of developing a responsible energy policy. At present, our only energy strategy is to import oil.

The Association I represent includes independent crude oil and natural gas producers in all 33 states with oil and natural gas production. Independents drill the overwhelming majority of all U.S. wells and find more than half of the nation's new oil and natural gas reserves. Independents operate as individuals, partnerships, or public corporations, ranging in size from very small, one-person ventures to large firms with hundreds of employees engaged in extensive oil and natural gas exploration,

development and production.

THE IMPORT DEPENDENCE PROBLEM

The principal reason the nation needs a strategic reserve of oil is that we are so dependent on potentially interruptible supplies of foreign petroleum. We have became so dependent on foreign oil because it has been cheap oil. However, the price at the gasoline pump does not tell the whole story. Inexpensive foreign oil has damaged our ability to produce oil here in America. In addition, it limits development of alternative fuels and energy technologies, and acts as an economic brake on energy conservation and efficiency investments.

Until the full costs of imported oil are reflected in its price, the economic invasion of the American energy market will continue. The largest component of the nation's trade deficit--the oil trade balance -- is a greater hemorrhage of American capital than our trade deficit with Japan. Oil imports have cost the U.S. over a half trillion dollars during the last decade, a period of relatively low world oil prices.

Meanwhile, the domestic oil and natural gas industry continues to face difficult times. The infrastructure of the domestic exploration and production industry virtually collapsed in the

late 1980s. Two years into the decade of the 1990's, the situation remains precarious: drilling rig utilization is only slightly above all-time lows; U.S. crude oil production is stalled near its lowest point since the early 1950s; and the seismic crew count, a leading indicator of future drilling activity, likewise is near record lows.

America's independent oil producers, who often operate economically marginal stripper oil wells or other low-volume production, are gravely concerned about the nation's dependence on foreign oil. The OPEC cartel is able to force, as it has in the recent past, the premature abandonment of existing U.S. oil production capacity by driving world oil prices below the cost of operating domestic wells.

The variable import fee, together with an oil set-aside program for the SPR, are intended to provide the U.S. with oil price stability. These policies arm America with two important domestic safeguards that the Administration's National Energy Strategy proposal does not -- a strong domestic industry and a more substantial SPR.

Today's hearing, of course, is focused on the SPR proposal. The IPAA supports the concept of requiring the strategic set-aside of imported crude oil. The basis of IPAA's interest is straight-forward; such a proposal will stabilize the price of imported

oil. With a more stable price for oil, there will be incentives to produce domestic resources, develop alternative fuels, and encourage Americans to conserve.

The IPAA favors a strong SPR program for four main reasons:

First, our weakened domestic oil industry cannot presently be regarded as a ready source of oil to deal with disruptions in oil imports. Moreover, we must recognize that existing federal laws have the effect of worsening the decline in domestic crude oil production. Current tax, environmental, and land use laws greatly contribute to the erosion in U.S. oil output. Maturity of domestic oil provinces is only a minor factor in declining domestic production.

Second, it is important to remember that the vast majority of imported oil supplies are controlled by foreign governments capable of manipulating the supply and price of oil in their own national interests. A strong domestic oil and natural gas industry is our country's best defense against foreign governments using our oil dependence to influence other U.S. economic and foreign policies. Although the SPR does not provide as much energy security as a strong domestic energy industry, it does serve as a defensive tool against such foreign oil supply manipulation.

Third, the IPAA believes that the full costs of imported oil are not reflected in its price at the border. A set-aside program would increase the price of imported oil to reflect some of those hidden costs. With most of the world's oil reserves located in the Middle East, Americans today are very aware of the military costs that we have to bear to keep foreign oil flowing. Yet, as the war recedes in our memory, so too will the realization that, at least in part, the price we paid was really part of the cost of imported oil. Reliance on imported oil also carries significant environmental risks from increased tanker traffic. These costs do not show up at the pump, but they are another price we must pay.

Fourth, a strong SPR could be especially crucial to energy security in the next decade. Development offshore and in the Arctic National Wildlife Refuge (ANWR) require long lead times and are capital intensive. There is no question that these prospects need to be explored and developed to provide additional supplies to the U.S. market. However, even with an expedited and successful development program, significant new oil resources from ANWR and offshore areas are not likely to be commercially available before the turn of the century. In order to provide all the critical components of the U.S. energy mix, it will be necessary to encourage the production of oil from the lower 48 states, establish a set-aside program, and maintain a viable SPR with sufficient supplies to meet emergency requirements.

HOW WOULD A SET-ASIDE PROGRAM WORK?

The implementation of a SPR set-aside program should not pose a significant logistical problem if designed with adequate flexibility in the delivery of crude oil or petroleum products to government storage. Obviously, it is not practical to expect a fixed percentage of each and every import shipment to be sent to a strategic government storage facility. Rather, the set-aside program ought to provide for periodic fulfillment of set-aside obligations through current industry practices of swapping and trading supplies.

It has long been a standard industry practice to swap crude oil and petroleum product supplies among different companies when location and quality differentials make it feasible. For instance, a company in Texas may negotiate with another firm in Wyoming for a different type of crude oil or product. The practice is more common with crude oil. However, petroleum product shipments are also swapped, prior to combining any additives. These kinds of arrangements make the best advantage of the fungible nature of petroleum, and allow the market to work efficiently.

IPAA has no expertise with which to judge the merits or demerits of a petroleum product reserve for the Department of Defense. We

are aware of the Department of Energy pilot program to test the viability of product reserves, but that effort is only in the early stages of development and offers no guidance to us on its effectiveness.

That said, it is nonetheless crucial that a set-aside program also apply to product imports, otherwise an economic incentive would be created to bring petroleum products rather than crude oil to the U.S. market. This would have the effect of weakening the nation's refining capacity, which is already at a relatively low level.

To be sure, a crude oil and petroleum product set-aside program will have differing impacts on individual refining and marketing companies, depending on their mix of imported and domestic oil usage. Certainly this concept could be modified to address certain concerns. But the concept of using the SPR as a stabilizing floor is what is important, just as it was used as a price ceiling in January 1991 as the air war in the Persian Gulf began.

USE OF THE SPR TO INFLUENCE PRICES

Although IPAA sees an expanding role for the SPR in preventing severe economic harm from potential oil supply disruptions, the

Association has reservations about the manner in which the SPR has been used to influence prices. It is worth noting that the only time the reserve has been drawn down, other than in tests of its administrative and operational systems, was to push down oil prices as a form of price ceiling. IPAA believes this is an inappropriate use of SPR oil.

Furthermore, since the U.S. has the overwhelming majority of strategic reserves, any drawdown of U.S. reserves to control domestic prices will also hold down world oil prices. The result is that U.S. taxpayers are, in effect, subsidizing foreign energy consumption.

IMPORTANCE OF PRICE STABILITY

Day-to-day price volatility in the petroleum markets is evidently here to stay, mainly because of the important role that futures trading plays in the price discovery process. The likelihood of large price swings in the short-run has been heightened by the instantaneous reaction of the market to traders who monitor each other's actions on their computer screens. This is very different from the marketplace several years ago when it would take about a week to realize changes in market forces.

Futures prices are affected not only by basic economic trends,

but also by psychological and political factors that intensify short-run price volatility. As currency traders have learned to live with daily exchange rate changes, the petroleum industry is trying to learn how to adjust to daily price fluctuations -- within a limited range.

It is the magnitude of the price changes that has wreaked such havoc in the petroleum industry. For example, prices of West Texas Intermediate (WTI) crude oil fell by 63 percent in eight months plunging from $30.83 per barrel in November 1985 to $11.55 per barrel in July 1986. More recently, after the air war began in the Persian Gulf, prices fell by 43 percent in only four months. Average spot WTI price dropped from $35.90 per barrel in October 1990, to $20.49 per barrel in February 1991.

These tremendous price declines make it virtually impossible for oil and natural gas companies to make effective business plans for the future. Independents are especially penalized by instability because they have to rely so heavily on outside investment for their exploration and development operations. All of their revenues come from the sale of oil and/or natural gas at the wellhead. Unlike the major integrated firms, independents cannot depend on profits made in other operations such a transportation, refining, marketing or international operations. Price volatility adds to market uncertainty, thereby eroding the confidence of investors, financial institutions, and corporate

planners.

The independent sector of the industry, which accounts for 85 percent of all wells drilled in the U.S., has had serious problems raising funds for its operations since the mid 1980s. Financing essentially has dried up, particularly as a result of the tax law changes in 1986 that discouraged the use of the limited partnership and initiated other tax penalties. In last year's tax bill, the tax rate actually increased for unincorporated oil producers and investors. Energy lenders have been hurt so many times by steep oil price declines that they are wary of loaning more funds. Unfortunately, the U.S. banking sector currently is not very healthy, which makes energy lending practices even more restrictive. Since independents usually want to accumulate some capital before they venture into new drilling projects, it will be necessary for more capital to flow into the independent sector before drilling can be increased.

The most critical requirement for market stability is that any price increase must be <u>sustained</u> for a long enough period for companies to become convinced that it is a long-term price trend. For the oil and gas business, this is usually a period of about six months to a year. Companies must be able to incorporate the new price expectations into their future budgeting and investment decisions before they can step up their drilling targets. Few companies want to commit to a costly drilling program that could

take up to five years before production comes on stream.

The importance of price stability was demonstrated recently when world-wide spot crude oil prices sky-rocketed after the Iraqi invasion of Kuwait. Because it was not generally perceived that prices would remain at the relatively higher levels, the industry did not respond with increased activity. Even if drilling had risen sharply, it would take years for petroleum companies to be able to increase domestic production. There would be at least a five-year lag before crude oil output could rebound significantly, even in an ideal climate such as with tax incentives and sustained price stability.

After the oil price shocks of the 1970s, independent crude oil producers were able to halt the decline in domestic oil production and reserves, but it took seven years of intensive exploration and development activity. The independent sector should be able to repeat this turnaround in the long-run if oil prices increase to an appropriate level. This would make it economically profitable for companies to step up exploration and development investments, including enhanced recovery operations.

An appropriate price and stability for domestic oil are equally important for the development of alternative fuels and to encourage conservation. We learned during the previous experiments in the 1970s with alternative fuels and conservation

measures that a government mandate won't work. The only workable solution to diversifying our energy mix is price. Isn't paying a few pennies more for fuel worth it, if it makes us less a hostage to the volatile Middle East?

Thank you, Mr. Chairman.

The CHAIRMAN. Ms. Bode, you are off to a flying start before this committee. [Laughter.]

That is wonderful testimony. Thank you very much. I agree with every word and syllable you said.

Mr. Arnold, I will not walk you through the exercise I did with Senator Chafee about conservation, and about the need for a strategic petroleum reserve, and about the fact that this would give incentive, however small, about the cost being relatively modest, maybe 4 percent, and that offset by what is paid to Defense and to the strategic petroleum reserve that would otherwise come out of the budget. So it is much less than that.

About the relative popularity of this program with the voters, relative popularity, and I promise to send Senator Chafee a copy of that poll, and I will send it to you as well. There is poll after poll that shows this is the only fee or security or insurance, or whatever you want to call it, that Americans are willing to put up with.

What I would like to talk to you about, though, is your statement that somehow, those with domestic reserves would be put at a marketing advantage to those who have to import oil. That really assumes that oil is not a fungible commodity, that somehow if you put this set-aside on, that domestic people would keep their price where it was, and that importers would raise theirs, so that the domestic people would get a higher market share.

Now, my first question is, where are they going to get the additional oil domestically?

Mr. ARNOLD. Mr. Chairman, I think probably what would happen in the marketplace would be that, for a period of time, they would take market share. And then in time——

The CHAIRMAN. Where do they get the oil from with which to take the market share?

Mr. ARNOLD. It seems to me that we operate in Altoona, Pennsylvania, western Pennsylvania, we compete for market share with the Midwest refineries, who transport it into the Pittsburgh area, and there is an interface between that supply, coming from the Midwest and our supply, which comes from the Gulf coast through the colonial pipeline and from the New York harbor refineries, across Pennsylvania in a westerly direction. That interface is somewhere west of us.

I am certain if they had a lower price product than that product that we are able to supply our customers with, that that interface line of transportation costs would move in our direction.

The CHAIRMAN. The point is this, are you saying that you would increase domestic production in order to take that market share?

Mr. ARNOLD. We believe increasing domestic production is a worthwhile goal, and we are in sympathy with that.

The CHAIRMAN. Is that the way they get this additional market share?

Mr. ARNOLD. I would hope so.

The CHAIRMAN. Well, if that is so, is that bad?

Mr. ARNOLD. It is not bad, as long as—but we think the funding mechanism to make that possible would better be that list of methods by which I spoke of earlier.

The CHAIRMAN. First of all, let me assure you of one thing, and of this I am absolutely certain, that is if you put on what amounts

to a 9 percent increase in price, it may give a little marginal incentive, but believe me it is not going to increase domestic production. I am absolutely positive of that.

Now, the best it might do is to help the decline curve be a little less steep, a little steep, that is the very best it would do. We are dealing with marginal amounts, I mean a 9 percent, if it amounts to 9 percent, and we may negotiate something less than that with the administration. That is hardly enough to give you a bonanza of domestic production, and if you do not increase domestic production, then you do not increase market share for domestic producers.

Is that not sort of common sense?

Mr. ARNOLD. I am not sure that there is not an equilibrium of pricing right now, where lower cost foreign oil, which comes into the country, absorbs transportation costs to get here, and has an interface in value described by the transportation costs, in competition with our domestic reserves and our domestic reserves and our domestic production.

The CHAIRMAN. Would you not agree with me that there is a market for oil, that once oil gets in this country it is no longer delineated as foreign or domestic. It is priced according to geography, where it is at, and quality and sulphur and metals and all of those things that constitute a cost to refiners. But that is all that matters, is it not?

Mr. ARNOLD. Senator, I know when the price goes up on the imported oil, when the New York Merc and the New York harbor reflect that increased price. I sell a lot less gallons in the direction of Pittsburgh out of Altoona than I do normally, because again the Midwest supply tends to be at a lower price at those periods of time.

The CHAIRMAN. For how long does that last?

Mr. ARNOLD. Too darned long, but usually about 6 weeks to 2 months.

And the other issue I bring, which is a regional issue, which Senator Chafee spoke about quite well, when the price goes up to my home heating oil customers I hear about it, and it does not matter if it is a set-aside or an energy tax or an increased cost of crude, it hurts.

The CHAIRMAN. Well the price of crude reacts, I would argue with you, almost immediately. Now it may take the price of gasoline or refined products which has been purchased at a lower price some time before, a few weeks to work through the system. But that is hardly, it seems to me, an argument against having something as important as getting the strategic petroleum reserve filled.

Mr. ARNOLD. And one of the reasons we so strongly support filling that strategic petroleum reserve, and recommend in addition the implementation of the refined product reserve, is the dramatic impact on the prices, which was indicated in the second day of our recent war, when the Energy Department displayed the courage to show that they were going to implement the strategic petroleum reserve.

We think this is a mechanism to manage the volatility of energy prices into the future. And if the refined product reserve is included, that brings more immediacy to the gallons of supply, and makes that impact even greater.

The CHAIRMAN. This is a way to get that thing filled up to a billion barrels, and really a way to use for price leavening.

Mr. ARNOLD. And we strongly support an accelerating the filling and doing that.

The CHAIRMAN. Well, I hope you will take another look at this. Really, the amount is not great. I mean, if it is 9 percent, that is really not great. And it is really not going to affect on anything longer than the length of time it takes the crude to sift through the system and get refined. But you say this is an unfair fee or security device—whatever you want to call it—but no fee is perfect. I mean, you get an income tax and that hits, you know, this region higher than another. You get a gasoline tax and it is the same way. No levy is perfect.

I would suggest that this one pretty well equals out between the West and the South, which drive more than the North and East, which uses more home heating oil. But it is a very small amount.

Mr. ARNOLD. Senator, in response, I would say we agree with the benefit of filling the SPR. And we encourage and support that.

But if the benefit is widespread, then the cost of doing that ought to be widespread as well.

The CHAIRMAN. This is pretty widespread. I mean, you come to Wyoming—I was out there in Wyoming. And just to go to dinner they have to drive about 20 miles. [Laughter.]

McDonald's has not come to Wyoming yet. [Laughter.]

This is the Wagon Box Cafe. Look at that, Mr. Arnold, really.

Because see, in order to get this policy passed, I mean, we have to have a new thought process in America where environmentalists say, well, we do not really want to drill in ANWR, but gosh, if we can get our environmental things, and we can get CAFE standards, and we can get alternate fuels, and really a good strong conservation program, maybe we ought to do it for America.

And contrariwise, the—all across the board, people need to rethink. And I mean the real question is, are we going to change from a policy of import to a policy of "Made in America." And we are all going to have to give a little bit for that. And I do not want this bill to be nibbled, you know, take off this piece because, you know, 4 cents a gallon is too much to pay in the Northeast, which uses one-half of 1 percent more because we have home heating oil rather than driving. Or you know, we played that game every single year up here, every year. And things only get worse.

Mr. ARNOLD. We hope you could achieve the same end with the drilling—the severance taxes reform with increasing all those other taxing aspects on domestic crude.

The CHAIRMAN. Well, you see, to lower the severance tax, in the first place, we cannot make the States do it. And the States are broke. To talk about a new tax on the Federal level, I mean, you have seen what we have just gone through up here on that. And it just cannot be done. And under our budget agreement, you cannot take it from somewhere else.

So, I mean this is a way to do it. I think it is a fair way to do it. And it is a very modest way. So rethink, if you would, your opposition to that.

Mr. ARNOLD. We hear you clearly.

The CHAIRMAN. Thank you.

Senator Wallop.

Senator WALLOP. Yes, Mr. Chairman.

Let me just echo what the chairman said, Mr. Arnold. You were full of praise, and correctly so, for the manner in which the Department of Energy used the strategic reserves at the beginning of the war, to level the speculative shock that would normally have been expected to take place in the marketplace.

I would suggest to you that the very people that you are talking of, benefitted greatly by that leveling.

Mr. ARNOLD. That is correct.

Senator WALLOP. I would also suggest that it is probably not possible for the United States strategic reserve all by itself to influence price very much. One of the reasons that worked was the heavy level of coordination that went on worldwide, so that France, Japan, Britain, Germany, and others open their strategic reserves at the same time.

But it is really just not satisfactory to say that they ought to fill it up, but somebody else ought to pay for it or somebody else ought to do it. I hear echoes of that. I see you coming up here last year when they were raising the gasoline tax 5 cents and other kinds of things.

All of us pay for it in one way or another. I just echo the chairman and hope that you will be able to rethink it, and in the process of rethinking it tell us a way that is right.

But do not tell us a way that is right that exempts New England, the Northeast, and others, from any obligation at all to shoulder a portion of that burden, because that is what I am hearing. But they should shoulder it.

Denise, I have one quick question. I am hearing from some of my Wyoming independents that we do not have enough in our bill to really make a difference to independents in the basic trauma that their industry finds itself in today. I appreciate your expression of support, and I also note that we used to work together a good deal on the Finance Committee. You know that as soon as we introduce a tax bill in here the energy strategy policy that we are trying to work on is removed from us.

Do you have any counsel as to what we might do in addition to what we have done that would be of an assistance to the independents?

Ms. BODE. Thank you for your kind words.

What I think the IPAA is interested in, in addition to the SPR provisions, are primarily in the natural gas area and in the tax committee, which is outside of your purview.

Senator WALLOP. Well, actually, natural gas we have done quite a lot on.

Ms. BODE. Right, and we are going to submit testimony as to how we would recommend that it be modified separately.

We are real interested in doing a number of things with regard to import policy, comment to you all on the NES and our concerns over imports. The other things that we are very much interested in is pipeline rate reform, comparability of service, those issues. And what we want to do is work with you all as you go through the

process to come up with a targeted set of provisions—not only that benefit the producers, but also that provide a healthier natural gas industry, both producers, the pipelines, and the end users.

And we will be getting you specific comments on those.

Senator WALLOP. I would appreciate that.

It seems to me that somehow or another we have to expand utilization of natural gas, and to do that we have both to expand the transport of it as well as its availability in the distribution market.

At any rate, we look forward to that testimony.

Ms. BODE. Well, we think that you have done a number of very good things, and we are very supportive of S. 341 and the efforts you have made.

Senator WALLOP. Thank you, Mr. Chairman.

The CHAIRMAN. All right.

Senator Nickles.

Senator NICKLES. Mr. Chairman, thank you very much. And I will be quick—I know we have another panel as well.

Ms. Bode, just to follow-up on what Senator Wallop was talking about, in looking at your statement, you have come out in favor of both a—I guess a—set-aside or the percentage going into SPRO, but also for a variable import fee or floor price. Is that correct?

Ms. BODE. We are very supportive of both concepts. Because we believe that we need price stability in the United States, because we need something for these folks to be able to take to the bank, to be able to say, this is what is going to be the situation 6 months to a year from now to the extent we can.

Senator NICKLES. Well, I have not focused so much on what Senator Wallop and Senator Johnston had introduced, which would have 9 percent of imported oil going into SPRO. I was coming from another standpoint that really came out of the price collapse in 1986 when we saw oil prices go down to $10. At that time I said, well, we should have some floor. We should not sit idly by while the OPEC countries were arguing over market share and, as a result, increasing production and driving prices down, which was catastrophic in my State of Oklahoma.

Mr. Chairman, we fell from 450,000 barrels a day in 1985, 1986 to less than 350,000 barrels. And a lot of that was due to the price collapse in 1986. And again, I like to think I wear the title free market probably as much as anybody in this body. But I did not think it made a lot of sense for us as a country not to do anything, to put some kind of floor, some kind of an import fee or something to make sure that we did not just decimate the industry and see oil prices bounce back up but not have the capability for the industry to respond.

And so I personally have introduced a floor price which I think would do more for stability for the industry, then even the so-called set-aside. The set-aside may help. It is kind of a different approach.

The CHAIRMAN. If the Senator would yield, Senator Wallop and I also have a $20 floor price. So great idea.

Senator NICKLES. Well, I appreciate that. My floor price was a little higher than that. But that is——

The CHAIRMAN. We will go with yours. [Laughter.]

Senator NICKLES. If we had the votes, I am sure we would.

But anyway, from Denise, what I hear you saying, you are also supportive of the floor price would probably do more than anything else to lend stability to the domestic industry.

For tax changes—Senator Wallop was inquiring—but probably one of the changes that you would really like to see would be to take intangible drilling cost off all-together as a preference item for alternative minimum tax?

Ms. BODE. Exactly.

Senator NICKLES. We have introduced those things. I think it is very much a needed thing. I was disappointed in the finance committee's effort last year when they made a couple of changes in computation in alternative minimum tax with the IDC's. But they did not really go far enough in my opinion. So hopefully we will be able to address that when, and if, we have a tax component of the bill.

So I appreciate your testimony before the committee. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Domenici.

STATEMENT OF HON. PETE V. DOMENICI, U.S. SENATOR FROM NEW MEXICO

Senator DOMENICI. Well, Mr. Chairman, I am not going to ask the witnesses any questions. But I thought I would just take a couple of minutes and say for the record and for those who are testifying regarding this provision—when we started the hearings on this new policy for our country, you might recall, Mr. Chairman, that I devoted most of my time to talking about whether any energy policy would work if we do not find a way to stabilize the price of crude oil; and secondly, any policy is not going to work on the conservation side if, in fact, we are committed to the lowest possible crude oil prices that we can have.

As we go through this—and I commend you and Senator Wallop for the extraordinary hearings and the expedited nature of them—I get more and more convinced, that even on the conservation side, we truly are going to be taking less than an extraordinary step for America through the regulatory processes, when we are insisting that we have the lowest possible crude oil prices because it is good for cheap gasoline.

The other side is, unless and until they go up some, obviously we are not going to get an awful lot of conservation.

It is interesting, in our country, production and conservation run together. Because we are not going to have much production and we are not going to have much alternatives. So we are just going to sit around and grow more dependent on imported crude oil. We are going to be thinking we are doing something different, but we are really not.

So I do not know whether your approach here on the 9 percent will work. I do not know whether the $20 floor that is in the bill is right. I know there are going to be complaints whatever you try to do.

But I just want to say for the record that those kinds of things, sooner or later, are going to have to step up and decide whether we are going to do them or not. If we do not want to do them on the

SPRO side, let me tell you, Mr. Arnold, your ideas on tax incentives are marvelous—everyone of them. And I guarantee you that we cannot get them done. It would be just wonderful if we could. We have this little bit in the big economic summit. And I tell you, if it was not in a reconciliation bill, where you could not do much about it, they would have wiped them all out in debate on the floor of the Senate with an amendment to strip them.

The first thing somebody said was what do we need any incentives for? The price of oil has just gone up. We know it had. We were right in the middle of the very ambiguousness of the war, and it spiked up. And somebody said let us take them all out. The price of oil is up $4 a barrel. Everybody is home.

Well, they dropped back down $5 in about 4 weeks, and then crept up. Well, who is going to produce oil? And who is going to produce solar? And who is going to produce all of those wonderful things we want?

So I am going to try to help the chairman and ranking member with anything that makes sense from the standpoint of reality. And the reality is, we do not want to break the American economy. We need energy as cheap as we can get it. But essentially, we really must do some meaningful things to minimize our dependence. And those two things have to be balanced. And it is not balanced to just say the cheapest crude oil around is wonderful for northeastern America.

Let me tell you, it really is not wonderful for anyone over the long run. I guarantee you.

Thank you very much, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Domenici.

Senator Craig.

Senator CRAIG. To both of you, thank you very much for your testimony. I think it is interesting, especially Denise, if you are from a State in which you have no independent producers, as to one's perspective of how this ought to be dealt with. And I think we heard a bit of that from my colleague from New Mexico.

But the frustration, I think, that comes from both the ranking member and the chairman on this issue is very, very real. And how we deal with it, I would have to suggest that as someone representing a rural State, I am willing to be a little flexible recognizing there needs to be some stability. But at the same time, being pretty cautious that we do not so effectively skew the marketplace that it does not work.

I know the one thing that we learned out of this process, that has no meaning at all on national energy policy, but it sure has a meaning on how to be fiscally irresponsible as a Government, and that is if you can peg a tax increase tied to gas at the right time, so you can blame it either on oil companies or the Iraqis, you are home free.

And that is what the 101st Congress realized in their budget package. They had a neat tax increase that broke precedent with something that had been longstanding in this Government, and they pegged it just at the right time so that the American consumer who paid it did not realize that he really should be blaming us for it instead of you. Or in this case, I think it was the nation of Iraq who took the blame.

But be that as it may, I suspect that timing is pretty darned important. And there is a sense of urgency here because of timing which makes real sense.

And I guess my only concern would be—and it would be something of what our chairman just said—maybe we need to rethink a little bit. I am concerned that if you peg the price or attempt to influence a floor by imported oil, that you do skew it geographically. I think that is very real, to an extent. And maybe with you and us working together, we can be a little more creative than to continually fall back to something that has not worked in the past. I think that is something our chairman is trying to do at this moment. I do not know whether we can sell it, but maybe we can sell some version of it.

Thank you both.

The CHAIRMAN. Thank you very much, Senator Craig, and thank you both, Ms. Bode and Mr. Arnold. We appreciate your testimony.

Finally, we have a panel on the Outer Continental Shelf, with Andrew Palmer, who is political director of the American Oceans Campaign, and with the very distinguished president of the American Petroleum Institute, Charlie DiBona.

Mr. DiBona, let us begin with you.

STATEMENT OF CHARLES J. DiBONA, PRESIDENT, AMERICAN PETROLEUM INSTITUTE

Mr. DIBONA. Mr. Chairman, members of the committee. I am president of the American Petroleum Institute, which represents over 250 companies involved in all aspects of oil and natural gas industry, including exploration, production, transportation, refining, and marketing.

My oral testimony will focus on the OCS provisions of title VIII of S. 341. I will also briefly discuss the future petroleum reserve provisions of title VII.

I have submitted written testimony, and hope that it can be included in the record.

The CHAIRMAN. Yes, without objection.

Mr. DIBONA. While API does not support all parts of S. 341, we strongly endorse the concept of a diverse energy strategy and applaud the rapid action of you, Mr. Chairman, and Senator Wallop, in preparing this legislation.

Opportunity to develop economically viable domestic oil resources, use of economically efficient alternatives, and research and development to promote the economically efficient conservation are all needed to enhance the Nation's energy security.

A combined approach is essential. Our Nation now imports close to half the oil it consumes, and the trend is to import more. Although it is not realistic to expect that we can eliminate imports, we can limit them. Increasing dependence on oil imported from insecure sources exposes the Nation to serious economic consequences. Title VIII is an important step in the direction of increasing domestic oil production from the Nation's Outer Continental Shelf, which may contain 32 billion barrels of oil and 228 trillion cubic feet of natural gas, according to Interior Department estimates.

If produced, these resources could help stem the decline in domestic oil production, one of the main reasons imports have been rising. They could also create many thousands of new jobs and increase Government revenues by billions of dollars.

Title VIII would provide incentives to States to allow development of these vital resources by sharing a portion of OCS revenues with States and communities affected by leasing and development.

API supports this concept. We suggest a program which specifies that a portion of the revenues go to local governments, and allows States and local governments to spend these monies as they see fit. The title also requires the President to report on various aspects of OCS development. Such a report would reconfirm the enormous potential of the OCS for enhancing the Nation's energy security.

Unfortunately, Government leasing moratoria have put the most promising OCS areas, 284 million acres altogether, off limits. As a result, until the moratoria are lifted, title VIII will be unable to do much to slow the decline in OCS oil and gas production.

We believe the moratoria are bad public policy, not only because they deny the Nation the opportunity to produce more of its own energy, but because the environmental concerns used to justify the moratoria are totally groundless.

All the evidence shows that offshore oil and gas operations are safe. Since 1975, when current Federal offshore safety regulations went into effect, less than 0.001 percent of the oil produced in Federal OCS areas has been spilled. This is why whatever is found in the water there has little to do with offshore operations.

For example, one 1989 minerals management service report showed that only 0.6 percent of the oil in the Gulf of Mexico, where most U.S. offshore oil production occurs, resulted from offshore operations. Natural seeps contributed 15 times as much.

The petroleum offshore environmental record reflects the advanced technology employed in these operations, and adherence to extremely stringent conditions and regulations. Each proposed lease/sale undergoes at least 2 years of scrutiny, during which time exhaustive data are collected relating to the possible impact on marine life, fishing, and tourism. Drillers must obtain 17 major Government permits, and comply with about 90 sets of Federal regulations.

In addition, coastal States have broad powers over exploration, of development plans to ensure their compatibility with State coastal programs.

Again, we welcome title VIII as an important step in the right direction, but as long as the moratoria remain they will stand in the way of what the title ultimately hopes to accomplish, more production of OCS oil and gas. In fact, neither the Interior Department's proposed 5-year plan nor title VIII are likely to check the decline in OCS oil and gas production that has been underway.

With regard to title VII of the proposed act, API supports the filling of the Nation's strategic petroleum reserve to a 90-day supply, however we believe that the provisions of the title are inadvisable for the following reasons.

All Americans benefit from a strong military and a strategic stockpile of oil. It is appropriate that society as a whole pay for the oil these programs require with funds from general revenues.

American industries that use large amounts of energy, such as agriculture, petrochemicals, motor vehicles, and primary metals, would be less able to compete with their foreign counterparts.

The program would be highly regressive. Low-income consumers would suffer more than high-income consumers because they spend a higher percentage of their income on oil products.

Title VII could not be implemented without establishing a complex and costly new bureaucracy. The special treatment and exemptions that would be sought by, and in all likelihood granted, to various classes of importers, exporters and consumers would create complications.

Finally, there are other ways of filling the strategic reserve. For example, the Government could lease oil, as recent legislation permits it to do.

That concludes my remarks. I would be glad to answer any questions you might have.

[The prepared statements of Mr. DiBona follow:]

TESTIMONY SUBMITTED BY

CHARLES J. DIBONA, PRESIDENT

AMERICAN PETROLEUM INSTITUTE

BEFORE THE

COMMITTEE ON ENERGY AND NATURAL RESOURCES

UNITED STATES SENATE

REGARDING TITLE VII ("STRATEGIC

PETROLEUM RESERVE") OF S.341

MARCH 11, 1991

Introduction

On behalf of the American Petroleum Institute (API), a national trade association representing over 250 companies in all facets of the petroleum business, I appreciate this opportunity to present the industry's views on the proposal contained in Title VII of S.341 (the proposed "National Energy Security Act of 1991") that would require oil importers to donate a fraction of their oil imports free of charge to the U.S. government with the proceeds used to meet the Department of Defense (DOD) oil needs and to fill the Strategic Petroleum Reserve (SPR).

Before turning specifically to Title VII, however, let me first briefly state the API's position on the SPR. We support an SPR of crude oil equal to 90 days' supply of imports. The SPR should be owned and operated by the federal government and funded from general revenues. Further, SPR oil should be released only upon a Presidential finding of a severe energy supply disruption or as part of the U.S. obligation under the International Energy Agreement, and the rate and timing of the release should be determined by the President. Legislation enacted late last year calls for the U.S. Department of Energy (DOE) to carry out a three-year pilot program for product reserves. While API has not supported the establishment of regional product reserves, its members have agreed to cooperate with government to make this pilot program a useful experiment from which to judge the merits of such a program.

Although the API supports increasing the volume of crude oil in the SPR -- to 90 days' supply of imports from its recent level of about 72 days' supply of gross imports based on 1990 import levels -- we believe that it would be inadvisable to fund the SPR as well as the DOD's oil needs through Title VII's proposed mechanism. As the following discussion explains, this mechanism would be highly inequitable, would have harmful macroeconomic effects, would interfere with progress toward establishing freer international trade, would be administratively complex, and would set an undesirable precedent for funding of federal programs.

Title VII's Inappropriate Funding Mechanism

The principal reason for the inappropriateness of the proposed DOD and SPR funding mechanism is that both the military services and the SPR are strategic assets that are intended to serve a general public interest. All Americans benefit because the nation has a strong military to protect the populace in case of aggression and a strategic stockpile of oil to protect the economy in case of oil supply disruption. Therefore, the society as a whole rather than any particular segment of the society should bear the costs of these programs, and the funds to pay for them should come from general revenues. Title VII could set an unfortunate precedent for funding federal programs in which special levies would be imposed on importers of all sorts of goods.

Indeed, like DOD funding, SPR funding traditionally has come from direct Congressional appropriations rather than from specially earmarked funds (with minor exceptions in 1986 and 1987 when Naval Petroleum Reserve sales revenues and SPR test sale profits were used). Strategic stockpiles of other minerals such as cadmium, platinum, chromium, and titanium are funded from general revenues, so general revenue funding of the SPR is consistent with the federal government's practice with regard to other strategic minerals.

Title VII would break with the tradition of general revenue funding by targeting oil importers. However, although the proposed legislation would impose defense and SPR costs directly on oil importers, in the competitive markets that exist much of these costs ultimately would be passed on to American individuals and firms that consume oil. Thus, under the proposed legislation, the burden of paying for DOD oil consumption and the SPR would be borne particularly by the individuals and firms who use relatively large amounts of oil.

With regard to direct consumption of oil products, hardest hit by higher oil prices would be the residents of the Northeast who depend heavily on distillate fuel oil for heating of homes and other buildings, and residents of rural areas who typically drive relatively long distances.

The proposed DOD and SPR funding mechanism also would be regressive; *i.e.*, it would harm people with relatively low incomes more than those with higher incomes. Low-income consumers spend a far higher portion of their incomes on oil products than do high-income consumers. Government surveys of consumer spending in the 1980s showed that, for example, the fraction of income expended on oil products by consumers whose before-tax incomes were in the lowest quintile was about three times the fraction of income spent on oil products by consumers whose incomes were in the highest quintile.

Individuals may be adversely affected by higher oil prices not only because it costs them more to purchase oil products, but also because they own or work for companies that use large amounts of oil. Oil and other fuels, whose costs also would tend to rise as oil costs rise, are important productive inputs for a broad range of U.S. industries. When energy costs rise, U.S. industries reduce their energy use. This causes their productivity to fall. In addition, because the proposed SPR and DOD funding mechanism would raise U.S. energy costs but not the costs of foreign competitors, American industry would be put at a competitive disadvantage in international competition. Industries such as petrochemicals, motor vehicles, primary metals, and agriculture that use particularly large amounts of energy, either directly or through their use of inputs whose production requires large amounts of energy, would be especially harmed by higher energy costs.

Not only would Title VII create inequities among industries, classes of consumers, and regions of the country, but it would also create inequities among oil companies themselves. Large importers of crude oil would be at a competitive disadvantage *vis á vis* companies with larger domestic oil production. In addition, in some cases the type of crude oil or product imported would not be suitable for the DOD or SPR, and the companies importing such oil, therefore, might have to buy oil on the open market for funding the SPR.

Title VII's Harmful Macroeconomic Effects

As stated above, in competitive markets the requirement that oil importers donate a portion of their imports to the federal government would cause U.S. energy costs to rise. The cost increase would be substantial: based on fiscal 1989 DOD oil consumption of 0.46 million barrels per day, U.S. oil imports of about 8 million barrels per day, and including the 0.22 million barrels per day SPR donation, the proposed legislation would raise Americans' oil costs by 9-10 percent assuming full passthrough of the higher oil costs. By way of illustration, if annual U.S. oil consumption were 6.2 billion barrels (its 1990 level) and the average oil cost were $20 per barrel, the proposal would raise Americans' annual oil costs by about $12 billion (6.2 billion barrels times approximately $2 per barrel).

Numerous studies by public and private organizations -- including, for example, the Department of Energy, the Congressional Budget Office, the Congressional Research Service, and Data Resources, Inc. -- have shown that increases in oil prices have deleterious effects on the U.S. economy. To summarize the effects: as the costs of petroleum products and other fuels rise, American consumers have less purchasing power to buy other items and consequently demand for many non-oil products falls; weak sales cause many industries to cut employment and otherwise scale back their operations; inflation accelerates as higher energy prices work their way through the economy; and productivity falls as American industry reduces its use of higher-cost energy. The studies use different assumptions, which causes some variance in their estimates of the effects of higher energy prices. However, there is broad agreement among people who have analyzed the problem that higher energy costs result in poorer macroeconomic performance including a loss of productivity and real income.

Finally, less national production and income means a smaller tax base. The gain to the U.S. Treasury from the proposed DOD and SPR funding mechanism, therefore, would be offset to some extent by falling federal revenues from other sources.

Title VII's Inconsistency With the U.S. Position on Freer International Trade

The proposed DOD and SPR funding mechanism would be an impediment to free trade. As such, it might violate the General Agreement on Trade and Tariffs (GATT), and our GATT partners might well challenge it. In addition, the proposed provision would have unfavorable effects on U.S. trade policies with Canada and Mexico, two of the major suppliers of U.S. oil imports. On February 5, 1990, President Bush formally notified Congress of his intention to enter into trilateral negotiations seeking a comprehensive free trade agreement. It is difficult to see how the proposed provision could be implemented with regard to Canadian oil imports without violating the existing free trade agreement with that country, or how it could be implemented with regard to Mexico without seriously jeopardizing the chances of a free trade agreement with that country. As discussed below, great pressure would exist to exempt such countries as Canada, Mexico and Venezuela. In any event, the proposal clearly is not in keeping with the spirit of freer international trade to which the U.S. is committed.

Administrative Complexities

A major new bureaucracy would be needed to administer and police the proposed program. Title VII's provisions are complex. For example, the Secretary of Energy may require the barrel payment in crude oil or any petroleum product, regardless of the specific

barrels actually imported by a specific importer; product for the DOD must meet DOD specifications; all donated barrels must be delivered to designated locations at designated times, and be of the same "fair market value" as those actually imported; and importers may receive credits against required donated barrels for barrels that are further refined and then exported. These provisions will require a staff of government monitors to insure that appropriate portions of each importer's oil shipments actually are delivered when and where needed, at required specifications, and at "fair market value" relative to the barrels an importer actually imported and the prices at the time of import.

In addition to these complexities -- which would in themselves require an extensive government administrative and compliance apparatus -- Title VII's administration inevitably would be complicated enormously by the granting of special treatment and exemptions to various classes of importers and consumers. The histories of the major post-World War II federal oil regulatory programs -- the 1955-1973 oil import restrictions and the 1971-1981 price and allocation regulations -- strongly suggest that special treatment would be granted to various interests. At some time during the import control program, special preferences were given to the following: small oil companies; new oil companies; West Coast importers; tidewater (rather than inland) refineries; Canada; Mexico; Venezuela; other Latin American countries; importers of residual fuel oil and other refined products; U.S. petrochemical

firms that imported crude oil; and U.S. possessions, most importantly Puerto Rico and the Virgin Islands; among many others. Similarly, the federal oil price control and allocation program was rife with special treatment. Preferences were given to a wide variety of groups including small refiners, farmers and others involved in food production, mass transit vehicles, health and public safety operations, firms involved in fuels production, local governments, and long-distance truckers, among others.

Certainly, many of the same groups that received special treatment in the past would again seek and probably receive special treatment if Title VII were implemented. Policing exemptions and special treatment could become extremely difficult because of incentives to have oil classified in exempt or specially treated categories. Again, thousands of government and private employees would be needed to administer, enforce, interpret and comply with the regulations that undoubtedly would be forthcoming. Moreover, the federal government's net revenue gain would be reduced by the inevitable exceptions and exemptions as well as by the government's administrative costs.

Title VII: An Undesirable Precedent

Defense and SPR costs traditionally have been met from general revenues, and it would be unwise to set a precedent for special funding. The military uses many items besides oil that are widely

used in the civilian sector and which the U.S. imports in large quantities including, for example, clothing, shoes, and motor vehicles. No one has seriously suggested that importers of clothing, shoes, or vehicles should contribute a portion of these free of charge to the government. Yet, such a contribution system would be the logical extension of Title VII's proposal regarding funding of DOD's oil costs.

Finally, P.L.101-383 explicitly allows the federal government to lease oil for storage in the SPR. Currently all oil in the SPR belongs to the U.S. government. The authority contained in P.L.101-383 allows the federal government to lease oil from a variety of sources including foreign governments, foreign national oil companies, brokers, or domestic oil producers. Under this authority DOE could avoid the large initial cost of oil acquisition. This concept offers real savings in the near term for federal budgets. The Administration and the Congress have been supportive of this concept. Since this authority became law only at the end of last year, DOE has not yet explored these potential savings. Such ways of saving money should be fully explored before the federal government imposes new charges to fund the SPR.

TESTIMONY SUBMITTED BY

CHARLES J. DIBONA, PRESIDENT

AMERICAN PETROLEUM INSTITUTE

BEFORE THE

COMMITTEE ON ENERGY AND NATURAL RESOURCES

UNITED STATES SENATE

REGARDING TITLE VIII

(OUTER CONTINENTAL SHELF)

OF S. 341

MARCH 11, 1991

Mr. Chairman and members of the Committee, my name is Charles J. DiBona, and I am president of the American Petroleum Institute (API). API represents more than 250 companies involved in all aspects of the oil and natural gas industry, including exploration, production, transportation, refining and marketing. We welcome this opportunity to address issues related to Title VIII of your legislation, S. 341, the "Energy Security Act of 1991."

We would like to commend you, Mr. Chairman, as well as the co-sponsors of S. 341, for your efforts to address the issue of U.S. energy security with a diverse strategy. As you know, while it is important to take steps to improve energy conservation in this country, conservation alone cannot do the job of making our energy future more secure and of promoting a healthy economy that benefits all Americans.

API supports federal revenue sharing with affected states as a means of helping to decrease the nation's dependence on imported oil by increasing oil production from the nation's outer continental shelf (OCS). Title VIII would provide incentives to states to allow leasing and drilling of offshore petroleum resources by providing "impact aid" to coastal states and communities that encourage petroleum operations in adjacent federal waters. We believe that a portion of this shared revenue should be allocated to local governments directly affected by

offshore work and that the states and local governments should be able to spend these monies as they see fit.

Several steps taken together -- including a boost in domestic oil production, research and economically justified actions promoting further conservation, increased used of clean-burning natural gas, and intensified research into how to make renewable and alternative fuels affordable -- can go a long way toward increasing energy security.

Americans consumed about 17 million barrels of petroleum products per day last year. Nearly half was made from imported crude, the highest percentage ever.

Growing dependence on oil imports from insecure sources -- the result of declining domestic production and growing consumption -- threatens energy security, undermines the U.S. economy, and costs American jobs. Heavy dependence also contributes to the already massive U.S. trade deficit. In 1990, payments for foreign oil amounted to $61.3 billion -- about 60 percent of the total trade deficit.

Federal OCS lands now provide nearly 15 percent of the oil and 29 percent of the natural gas being produced in this country. According to government geologists, offshore lands could contain up to 32 billion additional barrels of oil and 228 trillion cubic

feet of natural gas. Development of these reserves could help reverse the decline in domestic oil production, create hundreds of thousands of new jobs, and add hundreds of billions of dollars to government treasuries.

Unfortunately, government leasing moratoria imposed over the last decade have put most promising offshore areas -- 284 million acres all together -- off-limits to petroleum exploration and production. Until those moratoria are lifted, Title VIII can do little to encourage additional OCS oil and gas production. We object to the moratoria -- not only because they deny the nation the opportunity to produce more of its own energy -- but because the environmental concerns responsible for the moratoria are totally groundless.

All of the evidence shows that offshore oil and gas operations are safe. Since 1975, when current federal offshore safety regulations went into effect, less than one one-thousandth of one percent of the oil produced in federal offshore areas has been spilled -- a 99.999 percent safety record.

Some opponents of offshore petroleum activities cite tanker accidents as a reason to block development. These accidents are regrettable, and the petroleum industry is addressing the problem. But the fact is that 95 percent of the oil produced offshore is transported by pipeline. Continued delay in OCS

development through the use of congressional moratoria can only cause increased dependence on foreign oil -- with a resulting increase in tanker traffic and a higher risk of spills.

The petroleum industry's offshore environmental record also reflects the advanced technology employed in those operations and adherence to extremely stringent regulations. Each proposed lease sale undergoes at least two years of scrutiny, during which exhaustive data are collected relating to possible impact on marine life, fishing and tourism. Drillers must obtain 17 major government permits and comply with about 90 sets of federal regulations. In addition, coastal states have broad powers over exploration and development plans to ensure their compatibility with state coastal programs.

Title VIII also requires the president to report to Congress on various aspects of offshore petroleum development. Such a report would reconfirm the enormous potential of the OCS for enhancing the nation's energy security.

While offshore development has been studied in the past, we believe that any study ordered under Title VIII should carefully scrutinize the Interior Department's proposed five-year leasing program. As it currently stands, the plan offers limited opportunity for new discoveries. We believe the proposed 1992-1997 leasing program will not prevent a decline in offshore oil

and gas production over the next decade because of its limited scope. To maintain or increase offshore production, industry needs to focus on traditional areas and newer, relatively unexplored areas, which hold the promise of vast petroleum reserves that can contribute to U.S. energy needs for decades to come.

In these areas, we should quickly evaluate the environmental issues and then decide whether to proceed with leasing. We believe that objective evaluation will establish a strong case for leasing because of the industry's strong offshore environmental record and the tough federal requirements governing offshore operations.

Again, we welcome Title VIII of the Energy Security Act of 1991, but we believe that as long as the moratoria remain, they will stand in the way of what that title ultimately hopes to accomplish -- additional production of offshore oil and gas.

Mr. Chairman, the recent Persian Gulf conflict has refocused U.S. attention on the dangers of relying too heavily on unreliable sources of foreign oil. The United States depends on oil to maintain a healthy, vibrant economy, and to preserve our unique American quality of life.

Increased domestic production from potentially oil-rich areas

such as our federal offshore lands can help meet a greater share of U.S. energy needs, while enhancing our economic security.

The CHAIRMAN. Thank you very much, Mr. DiBona.
Mr. Palmer.

STATEMENT OF ANDREW PALMER, DIRECTOR, WASHINGTON OFFICE, AMERICAN OCEANS CAMPAIGN

Mr. PALMER. Mr. Chairman, thank you very much for the opportunity, for inviting us to testify. My name is Andrew Palmer, and I am the director of the Washington office of the American Oceans Campaign, and I am presenting this testimony on behalf of a number of groups, including the Natural Resources Defense Council, the National Audubon Society, the Florida Public Interest Research Group, the California Local Government Coordination Program, and the Coast Alliance.

I will summarize briefly my testimony, and ask that the balance of it be entered into the record.

We wish to thank the committee for the invitation to provide our views on the pending legislation, the National Energy Security Strategy Act. While we may disagree with elements or approaches in the act, we are gratified to see that this committee take up the leadership and bring the issue of a unified energy policy before the American people and before the Congress.

World events and increased environmental awareness have stimulated an overdue national energy debate on energy policy, and the role of fossil fuels in our economy and in our environmental future. In the past decade, much of this Nation seemed to forget the lessons we learned in the 1970's, and found ourselves lulled into a sense of false security, fueled by low prices at the gas pump.

In our view, the retreat from Government leadership, along with the retreat from policies, wise policies promoting conservation and efficiency, have brought us continued vulnerability to swings and disruptions in world oil markets.

We are convinced that the debate over energy supplies cannot ignore, however, the role of fossil fuels in global warming. Any national energy strategy, which is to serve best the interest of the Nation, must consider policies which lead to significant reduction in the use of fossil fuels.

Everyone is familiar with the fact that the average car burns its own weight in carbon annually. It is therefore not too surprising that one of the quickest ways this Nation could move to achieve a leveling off of production of greenhouse gasses, is through a reduction in the amount of oil used in transportation. Both the President's National Energy Strategy legislation and the legislation before us predicates a large role in the OCS in reducing the Nation's reliance on foreign oil.

Currently the U.S. consumes approximately 17 million barrels a day. The OCS amounts to 4 percent currently, at current rates of production of U.S. daily oil requirements. According to the administration's own figures, the national energy actions package, it would provide only an additional 100,000 barrels per day of OCS over and above the current levels by the year 2010. This would amount to 0.5 percent of total daily current consumption.

According to a report recently released by the National Resources Defense Council, moderate fuel economy standards would

provide a savings of 2.93 million barrels a day by the year 2010. It is our conclusion that efforts to increase OCS oil and gas production over the next 20 years will provide virtually no relief from dependence upon imports, while presenting increasing risks to marine environments of many States.

Today we have been asked to comment on provisions of title VIII of the National Energy Strategy Act, and the first provision concerns one which has been historically known as revenue sharing. This is not a new proposal, and similar proposals, although in different forms, have been introduced over past Congresses.

Environmental groups have not always supported these efforts, especially when the goal seems to be to buy off coastal States into leasing areas off shore which maybe they normally would not. Environmental groups, however, have not opposed the concept of sharing some OCS revenues with States and local communities, provided that the funds would be used to offset environmental risks and impacts from offshore development. Certainly the chairman's own State has experienced many of those impacts in terms of loss of wetlands, and so forth.

In assessing S. 341 I decided to do a calculation based on the revenue figures from 1988. These figures do not represent the high end of the average of revenues over the last 10 years. In fact they represent more the lower-middle of those.

From the calculations it would appear that the amount of funds that would be obligated to the fund, that is the coastal impact fund, would amount to 10 times the amount that was appropriated by Congress to the 29 coastal States for the coastal zone management program. We feel this represents an imbalance.

Another reservation we have concerning the revenue sharing proposal is that the money is not targeted at reducing the environmental impacts associated with leasing. We feel the money ought to go towards the impacts and potential risks of the development. This is best accomplished by directing the money to States and local governments for activities related to planning for future lease, post-lease activities, other related coastal needs, habitat restoration and the like.

The second provision of title VIII requires the Secretary to provide a report to Congress of the availability of the OCS releasing. We think that much of the data requested already exists and is duplicative.

As to the extent of the report itself, we also have further reservation. The type of data, we feel, is highly selective that the Department of the Interior is required to develop and present is highly selective, and seems aimed at providing arguments for proponents of OCS leasing.

If the committee chooses to retain this provision, a better balance would be provided if the Secretary were to also be required to provide information on the role of conservation, alternative fuels, energy efficiency, etcetera, and reducing our dependence on foreign oil, and the need for additional OCS production.

We would also like to see data which reflects the comparative increase and risk of oil spills from OCS development and production scenarios which are not currently subject to development.

One final thing I would add is that there is a proposal in the report that requests the Secretary to develop a proposal for a pre- and post-lease process that would have a staged decision-making process, but would support that the lease was—the leaseholder would have the right to produce from the lease, unless the lease was cancelled.

I would just like to point out that present law, including the recent Supreme Court decision in 1984, I think clearly underscored that there is no guaranteed right of development for any leases held by leaseholders on the OCS under the 1978 amendments.

In sum, our organizations must oppose the provisions of title VIII as drafted in this legislation.

Thank you.

[The prepared statement of Mr. Palmer follows:]

TESTIMONY
OF THE

AMERICAN OCEANS CAMPAIGN
AND
THE NATURAL RESOURCES DEFENSE COUNCIL
NATIONAL AUDUBON SOCIETY
FLORIDA PUBLIC INTEREST RESEARCH GROUP
CALIFORNIA LOCAL GOVERNMENT COORDINATION PROGRAM

BEFORE THE

COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

ON

S. 341
THE NATIONAL ENERGY SECURITY ACT OF 1991

March 11, 1991

prepared and presented by:

Andrew Palmer
Political Director
American Oceans Campaign

I. Introduction

Today I am presenting testimony on behalf of the American Oceans Campaign and the Natural Resources Defense Council. We wish to thank the Committee for the invitation to provide our views on the pending legislation, the "National Energy Strategy Security Act".

World events and increased environmental awareness have stimulated an overdue national debate on energy policy and the role of fossil fuels in our economy and environmental future. Numerous bills relating to energy and energy policy have been introduced by members of Congress. The level of interest in energy policy is perhaps at its highest level since the mid to late 1970s.

Many of us in the environmental community welcome this renewed interest. For the past decade, much of the nation seemed to forget those lessons learned in the 1970s and we found ourselves lulled into a sense of false security fueled by low prices at the gas pump. The Reagan Administration had abandoned all pretext of government leadership in setting energy policy. The approach of the 1980's was one of not-so-benign neglect. The prevailing policy was to leave it to the market place to establish "policy" -- a market place dominated by the big energy companies whose primary interest was to increase consumption.

The previous Administration's attempts to abolish the Department of Energy and to roll back fuel economy standards were only the most visible efforts to reverse many of the wiser policies begun in the 1970s. This retreat from government leadership, along with a retreat from policies promoting conservation and efficiency, has brought us continued vulnerability to swings and disruptions in world oil markets.

We are also convinced that the debate over energy supplies and sources cannot ignore the role of fossil fuels in global warming. There is world scientific consensus that if we continue to pour the amounts of CO_2 and other greenhouse gases into the atmosphere at present or increasing rates, then we are certain to experience major changes in our global climate, most of which will be detrimental. Any national energy strategy which is to serve the best interests of the nation must consider policies which lead to the reduction of the use of fossil fuels by our society. Further, many energy experts agree that present day technology, combined with alternative fuels, efficiency, and conservation present the best path to energy security and reduced CO_2 emissions.

Both the President's National Energy Strategy legislation and the legislation before us today predicates a large role for the OCS in reducing the nation's reliance on foreign oil. However, if one looks at the actual figures, it is difficult to see how new OCS production will materially alter future import levels.

Currently, the U.S. consumes approximately 17 million barrels of oil per day. The average daily production from offshore oil wells in the OCS in 1989, according to Department of Interior figures, was 712,824 bbls. This amounts to just 4% of daily U.S. oil requirements. According to the Administration's own figures, its National Energy Strategy actions package would provide only an additional 100,000 bbls per day of OCS oil over current levels of production by 2010[1]. This amounts to just one half of one percent (.5%) of total daily consumption. On the other hand, data show that efforts targeted just on achieving higher mileage for cars and light trucks will produce much greater gains much sooner. According to a report recently released by the Natural Resources Defense Council, moderate fuel economy standards (40/30) alone would provide a saving of 2.93 million barrels a day by the year 2010, while most of the OCS wells from lease sales in frontier areas over the next couple of years will just be coming on line[2].

It is our conclusion that efforts to increase OCS oil and gas production over the next ten

years will provide virtually no relief from dependence upon imports, while presenting increasing risks to the marine environments of many states. On this basis, we are convinced that efforts to promote oil and gas development in environmentally sensitive coastal waters of the U.S. are a misguided expenditure of effort and that much greater benefits would accrue from pursuing a strategy of efficiency and conservation.

II. OCS Provisions of S. 341.

S. 341 contains two provisions relating to development of Oil and gas on the Outer Continental Shelf. The first provision establishes the Coastal State and Community Outer Continental Shelf Impact Assistance Fund (Fund). The purpose of the Fund is to take a portion of the revenue derived from new leasing, rentals, and royalties and provide it to state and local governments for their use. A second provision requires the Secretary of Interior to submit to Congress six months after passage of the Act a report on aspects of the OCS program.

A. Coastal State and Community Assistance.

The effort to develop a program for the distribution of OCS revenues to coastal states is not a new proposal. In prior Congresses, several versions of revenue sharing bills have been introduced. In addition, the Administration has announced its intention to introduce similar legislation sometime this session. Environmental groups have opposed some of these efforts in the past when it appeared that the goal was to buy off coastal states who would have otherwise opposed offshore leasing on environmental grounds. On the other hand, we have not opposed the concept of sharing some OCS revenues with states and local communities, provided that the funds would not be used as a buy off and would be used to offset the environmental risks and impacts from offshore development.

It is our view that the OCS revenue sharing provisions of S.341 are deficient in several respects. First, the potential amounts of money made available to the Fund are very large. To illustrate this we cite the following example. According to the Department of Interior's statistics, a total of $1.36 billion was collected by the Federal Government from OCS leasing bonuses and rents in 1988[3]. Applying the formula of 37.5% of total revenues yields $510 million available for the Fund.

This generous amount would go primarily to three states[4], and represents a figure that is more that 10 times the total amount Congress appropriated last year to the 29 states with federally approved coastal zone programs under the Coastal Zone Management Act. To put it in another perspective, this amounts to nearly $140 per barrel of oil anticipated to be produced from the new leases by the year 2010[5]. Although this amount of money would not be reflected in the market price of that oil, it is worth noting that many alternative energy sources, including solar and wind, become marketable at a much lower figure. If the Committee decides to retain this provision, we urge you to look carefully at the proposed amounts of revenues transferred from the Treasury to the states versus the actual gain in production and make appropriate adjustments.

A second major reservation we have concerning the revenue sharing proposal is that the money is not targeted at reducing environmental impacts associated with leasing. If there is a reasonable argument for sharing some of the OCS revenues with coastal states, it is that the money ought to go toward offsetting the impacts and potential risks of offshore development. This is best accomplished by directing the money to the states and local governments for activities related to planning for future lease sales, post-lease activities, other related coastal planning needs, habitat

restoration and other coastal projects which serve to restore and protect the coastal environment, and enhance the oil spill response capability of state and local governments. It is our recommendation, that should the Committee decide to retain this provision of the bill, that it add language ensuring that the money is targeted for the activities described above.

B. The OCS Availability Report

Title VIII of S. 341 requires the Secretary of Interior within 6 months after passage of the Act, to submit to Congress a report concerning certain aspects of the OCS leasing program. We would oppose this provision as written on a number of grounds. First, the requested data are duplicative in that much of it already exists or will appear in the near future in documents relating the Draft Proposed 5-Year Leasing Program.

Second, the type of data requested of the Department of Interior is highly selective and seems aimed at providing arguments for proponents of OCS leasing. For instance, the language of the proposed legislation requests data on OCS oil spills versus spills from tankers carrying imported oil. This implies that OCS oil from these regions will significantly displace imported oil, which it will not. This also ignores such issues as increased tanker and barge traffic within a region as a result of OCS activities and the increased likelihood of local spills.

As previously stated, we are convinced that the report is duplicative and therefore unnecessary. If the Committee chooses to retain this provision, a better balance would be provided if the Secretary would also provide information on the role of conservation, alternative fuels, and energy efficiency in reducing our dependence upon imported oil and the need for additional OCS production. We would also like to see data which reflect the comparative increase of risks of oil spills from OCS development and production in areas which are not currently subject to development.

The report also requests the Secretary to develop a proposal providing for staged requirement for environmental information and public comment during the pre-lease and post-lease process. We would agree that this is a minimum requirement which should go well beyond current practice. However, we find troubling the assertion that such a proposal make the assumption that the lease holder is fully entitled to explore develop the lease, regardless of the environmental information collected, subject only to cancellation. Current law, no matter what the industry wishes, is clear -- gaining a lease grants neither explicit nor implicit rights or guarantees that the holder will ultimately be able to explore, develop, or produce from it. This view was re-enforced as recently as 1984 when the Supreme Court, in *Secretary of the Interior v. California*, in the majority opinion, wrote that:

> "Under the amended OCSLA, the purchase of a lease entitles the purchaser only to priority over other interested parties in submitting for federal approval a plan for exploration, production, or development. Actual submission and approval or disapproval of such plans occurs separately and later.
>
> Since 1978 there have been four distinct statutory stages to developing an offshore oil well: (1) formulation of a five year leasing plan by the Department of the Interior; (2) lease sales; (3) exploration by the lessees; (4) development and production. Each stage involves separate regulatory review that may, but need not, conclude in the transfer to lease purchasers of rights to conduct additional activities on the OCS.[6]

In summary, we cannot support the provisions of Title VIII of the bill as drafted. We strongly urge the Committee consider dropping these provisions.

Endnotes

1. National Energy Strategy: Powerful Ideas for America, first edition 1991/1992, Appendix C, pp. C-21 to C-22.

2. Looking for Oil in All the Wrong Places: Facts About Oil, Natural Gas and Efficiency Resources, Natural Resources Defense Council, February, 1991, p. 29.

3. Federal Offshore Statistics: 1988, U.S. Department of the Interior, Minerals Management Service Offshore Information and Publications, OCS Report MMS 89-0082. 1988 is the latest year for which figures are publicly available and was not an abnormally high one. While fluctuating according to the lease sale offerings and industry interest, over the past ten years (1978-88), bonus bids alone have averaged approximately $3.48 billion annually. Although S.341 calls for including royalties from leases sold after February 5, 1991, we did not include any. Obviously royalties for these leases would not start accruing from these new leases until production started, a minimum of seven years or more down the road.

4. Texas, Louisiana, and Alaska. Under the Draft Proposed 5-Year OCS leasing program, these three states have 18 of the 23 total sales scheduled.

5. Based on the assumption that the OCS leasing program will contribute an additional 100,000 bbls of oil to present OCS production figures.

6. U. S. Supreme Court, *Secretary of the Interior, ET AL. v. California ET AL.*, No. 82-1326, January 11, 1984.

The CHAIRMAN. Thank you, Mr. Palmer.

Mr. Palmer, I hope you will give credit where credit is due to this bill. First of all, I hope you realize we did not put in drilling off California or indeed, even production off California, even for those areas that have production ready to go that can be turned on just by turning the spigot. We did not deal with that. We did not deal with Florida. And we ought to get at least one gold star in the environmental crown for doing that.

Secondly, I think while we did not ask you to testify on the whole bill, I hope you will take back glowing reports about the balance that is in this bill because all of those areas that you talked about, conservation, alternative fuels, CAFE standards, those tough things that you have been trying to get for a long time, we not only provide for them, but we actually fund them. And we are deadly serious about that part of the energy equation.

We think that is a vital part and we are going to be pushing those provisions just as hard as we are pushing the parts from the production side.

Now I would like to urge you to do one thing and that is, environmentalists tend to play the numbers game a little too much with us. I mean, there is a figure here stating that OCS production is only 4 percent of total energy needs, and therefore, it is not important. I think that number, by the way, has got to be low.

Mr. PALMER. That is based upon the Federal offshore statistics, but I will check it.

The CHAIRMAN. Our figures are 410 million barrels. I think that is annually. Mr. DiBona, do you have that figure that is produced in the OCS?

Mr. DIBONA. Well, it depends upon what you put in the denominator. I mean, if you talk about, for example, natural gas production, OCS natural gas production is between 20 and 25 percent of the total domestic U.S. gas production. If you talk about oil production, it is something less. If you talk about the total consumption as opposed to production, why, as we are importing half, you divide those numbers by 2.

If you talk about total energy, including, which is what he is doing, including coal, nuclear power, and everything else, you can get the number down. And if you make it a part of GNP, you could even make it smaller. So, it is a game being played here. It is the same game that is played about the number of days of production that you would get out of, for example, Alaska, the north slope.

The fact is, we could get between 1 million and 2 million barrels a day for up to 30 years of production, and yet, if you convert that into the total U.S. consumption, as if that were relevant, then it is a good deal shorter period of time. And it is the kind of argument that would suggest to you that you should never open a farm in the United States because no farm could supply the total food needs of the United States for more than a few minutes.

The CHAIRMAN. Well, that is my point and I would suggest that all sides in the energy equation have played the game. I mean, the game is to make that part of the mosaic, which you represent, be very big and that part which the other fellow represents, be very small. And it has been played by the producers as well.

What we have to do this time, in America, with the third energy crisis in 18 years, is also to play by fair statistics. Now, I am for CAFE. We have CAFE in our bill. But the figure you have by 2010 that is going to produce 3 million barrels per day or whatever, whatever that figure is, 2.8 million barrels per day, I would like to think that is so. I just do not believe it is so.

You might have seen that editorial in the New York Times about why CAFE will not work. I reject that. We have it here. I think we ought to push it for all it is worth. But saying that CAFE is going to produce 2.8 million barrels a day, is like saying that ANWR is going to be bigger than the Middle East. And it is possible. I mean, you know, there is enough producing rock—there is enough rock, what do they call it, porous rock, that if it is all filled with oil it could be bigger than the Middle East, bigger than Saudi Arabia. I do not think it is, frankly.

But I also do not think on the other side of the equation that we are going to get as much from CAFE or from these other things. But we have to pursue them. We have to pursue them all. And I hope that what we will have is where everybody can come to this energy table and say, well look, let us be sure that our side of the equation is fairly treated. Let us be sure that we deal with some of these environmental issues that we have been pushing for a long time, conservation, and conservation is the biggest domestic source of energy. I believe that.

But it is not easy to get at. The easiest way to get at it is with energy taxes. But I do not know of anybody around here who is willing to be for them. Not me. I tried it back in the 1970's. I proposed a 50 cents gasoline tax, 10 percent a year. Actually, I was going to rebate that to the taxpayer through the social security system, adjusted for regional differences in driving.

And in theory, it was not going to cost the average driver a cent. It was going to penalize the guy who drove too much and reward the one who was willing to restrain his driving.

I put that in and there was a fire storm of criticism. And as a matter of fact, I reached back to find out where the environmentalists were and I could not find them. I could not find anybody. And I quickly denounced my own proposal.

So those who think that energy taxes are going to go anywhere, I mean, we ought to do it and that is the way Europeans resolve or conserve a lot of their energy. But we are just not going to do it.

The package we have here is one that I think will help produce this. Now, I wish, Mr. Palmer, you would rethink your opposition to this coastal energy impact fund. I mean, it may not be perfect, and by the way, the figures you used are not correct. The figures we have are that in 1992, it would involve $154 million. Those are figures taken from estimated production figures. It is still a nice piece of change, but look, I have been saying all along that there are impacts from past drilling that need to be addressed and help us get the dollars for environmental restoration.

I had a bill there on the floor of the Senate. We co-sponsored a lot of legislation to help deal with coastal energy impacts. Now it may not be a perfect provision, but rather than just saying, oh no, you do not need that, let us go over here, use that money for something else.

You have to recognize that there are some impacts and we ought to help alleviate those. And the fact that a lot of the money goes to the place where it is produced is only a recognition of the fact that that is where the impacts are. And with respect to your argument that it helps bribe people into drilling on the OCS, I think you really need to take a look at the fact that as far as oil spills are concerned, only 2 percent of the oil that is spilled in the ocean comes from OCS drilling where a tremendous amount is produced. And some 45 percent comes from tanker accidents.

That is over a 20 to 1 ratio. I know you are familiar with that. So while I think this is not a bribe coastal States provision—if it was, I do not think that would necessarily be bad environmentally. I know it would be hard for you to promote that, but let us face the fact that in terms of oil spill policy, it is pretty sound, is it not?

Mr. PALMER. Well, just to respond. I think you do show a great command of the situation. But I would like to say that I would like, I think I can validate my figures and I will certainly double check them and submit them to the staff and we can deal with that.

The CHAIRMAN. We can exchange figures with you on that. We will give you ours as well. I do not mean to challenge your veracity on that. I mean, there are various ways you can use the figures, as Mr. DiBona pointed out. Really, what we ought to do is kind of get away from the figure game after giving you our figures and you giving us yours. But that should not be our focus. Our focus ought to be on how can we solve this problem.

Mr. PALMER. I would agree with you and you are right that your bill does contain elements that, at least philosophically, we agree with. Maybe we do not think they go far enough in terms of going after some of the other alternatives.

The CHAIRMAN. And we would like your suggestions on that. By the way, we intend to look at fleet standards on natural gas to see if we can make that work. And that will help solve that problem as well, and any other suggestions you have we would like to hear them.

Mr. PALMER. With regard to the revenue sharing element, I think that maybe I was not clear enough. We have supported types of revenue sharing bills in the past. There was Senator Stevens, and Senator—I'm sorry, Congressman Jones developed a joint proposal several years ago that might be worth looking at for the committee in terms of the way the monies were targeted and so forth, and allocated.

The CHAIRMAN. Well, this formula comes directly from the Coastal Zone Management Act, which I think was broadly supported. Senator Hollings and Senator Stevens in the Commerce Committee developed that years ago. It is still on the books. We just took that and say, let us fund it.

Mr. PALMER. Maybe that was not the best way to do it.

The CHAIRMAN. Well, the reason we did it that way, because that was already on the books. It took a long time to enact that into law. And rather than try to revisit all of those things, we thought, look, here is tried, true, and tested, and passed the political war signed into law by the President, and implemented for a number of years until we ran out of money. And that is why we used that.

Now, if there is a way to make it better by some alternative means, well, we will be glad to consider that. But it was from the coastal energy impact fund in the CZM legislation.

Senator Wallop.

Senator WALLOP. Thank you, Mr. Chairman. I will be brief.

Mr. DiBona, I do not quarrel with your assessment that SRPO and the defenses of the United States are a benefit to everyone and, therefore, ought to be shared equally through obtaining the resources through the general fund. But the general fund, or general revenues, have no availability. So the next best thing is to try to figure out if there is a way that is uniformly broad based, if not so precisely fair as taking it out of the general fund or general revenues.

But in fact, general revenues are not in every respect, taken in the same percentage. So, we will work with you on that.

I would just like to turn to Mr. Palmer for a minute. You spoke of unified energy policy. Does production have any role in unified energy policy to you or your groups?

Mr. PALMER. Well, that is not an easy answer to make. But yes, some production does. Obviously, we cannot stop all production and cap all wells today.

Senator WALLOP. Now, I am talking about new production.

Mr. PALMER. We think when you look at new production, we think you need to look at where it is and what is the expenditure needed to get it. You and I both know how controversial and difficult leasing in the OCS has been over the last 10 years and it is not likely to get any easier in the next 10 years.

The administration has an interesting proposal which has not been discussed here today and maybe it has been discussed before, and that is to go after enhancing the recovery from existing fields.

Senator WALLOP. But that is a conservation effort, and deserves to be credited as being one. What I am talking about is whether your organization finds anywhere where new production should play a role?

Mr. PALMER. Senator Wallop, we would view that as potentially new production. In other words, that is oil that you would not normally get out of those wells unless you have these——

Senator WALLOP. I have the hardest time with the environmental community. To save what you know you have and use it and not lose it, would seem to anybody's ordinary use of the English language, is to be conservation rather than waste it and let it go out. And in terms of existing production, how can you say that is not conservation?

Mr. PALMER. That is the same language the administration uses in its National Energy Strategy. And——

Senator WALLOP. Does your organization support expanded use of nuclear?

Mr. PALMER. Our organization has not taken a stance, specifically, on nuclear. I mean, I can tell you personally that I have problems with the nuclear industry and the nuclear option.

Senator WALLOP. What about the expanded use of natural gas?

Mr. PALMER. The expanded use of natural gas may make sense as a bridge fuel in the short term. But again, as I said in my testimony——

Senator WALLOP. A bridge to what kind of fuel?

Mr. PALMER. As an alternative to burning oil products.

Senator WALLOP. But you say it is a bridge fuel. What are we bridging to?

Mr. PALMER. To reduced use across the board on fossil fuels.

Senator WALLOP. What are we going to use for fuel if we cannot have nuclear? The environmental community has testified against hydropower. Where are we going to get it?

Mr. PALMER. Senator, we are just not going to agree on this.

Senator WALLOP. We are not. And let me suggest to you one of the reasons we are not going to agree on it is your conservation efforts. None of them, by themselves, will get to 100 percent of the requirement for energy independence. None of them will. Would you agree with that—by themselves?

Not CAFE, not enhanced recovery——

Mr. PALMER. We probably, under no scenario—and again, the administration, I think, supports this assertion—will ever be entirely independent of outside energy sources.

Senator WALLOP. Is there a single act of conservation that will achieve 100 percent of our requirements?

Mr. PALMER. Not that I readily know of.

Senator WALLOP. But you will agree that we ought to try those single acts of conservation that do add to the picture?

Mr. PALMER. I think it is a mix of things.

Senator WALLOP. The point I am trying to get at is that your testimony, and others that have preceded you, is that since the offshore is not going to take care of 100 percent of our needs, since the ANWR is not going to take care of 100 percent of our needs, since other things might provide a little more, we do not and should not do any of those things.

But I am suggesting to you that your own standard for conservation is precisely that: that each of these segments add a point to the general level of energy resilience, if you will, of the United States, that lessens our dependence on shock and other things.

To call gas a bridge fuel to no fuel at all, it is hardly serious, unless you can tell me, and tell the committee what kinds of fuel is going to take its place. If it is not going to be nuclear, and it is not going to be fusion, what is going to do it?

Mr. PALMER. I can only repeat that we feel a mix of alternatives. Conservation efficiency can replace the need to develop new areas of the OCS and ANWR. And that is what our figures tell us.

Senator WALLOP. And the OCS is, by far the largest potential for the gas—this bridge fuel—is going to be the OCS. But you would rather not have us do that.

Mr. PALMER. Well, 99 percent of the gas currently comes out of the Gulf of Mexico. I am not sure that the other provinces——

Senator WALLOP. Well, guess why? We have not been able to drill in the other places.

Mr. PALMER. Well, geologically, probably most of it is in the Gulf of Mexico.

Senator WALLOP. There is going to be a lot of gas off the coast of California, my friend—a lot of gas.

You are all apparently quite willing to leave our dependence up, and keep us with a potential threat of more blood shed in the

Middle East or other parts of the world, rather than have the scenic pollution of a safe energy production off the coast of your own State or anybody else's.

I have to tell you that your standards are singularly shaped to your own view of the world and are not consistent. If a major portion of conservation cannot be achieved by any one thing, but by a combination of several things, surely you would not have us rejected it because it is not enough in any one area. But that is what you are saying in terms of levels of production. And I regret it—I guess we were going to have that argument.

But it is not consistent. It is not intellectually sustainable. It really does not get us to the point where everybody is sharing in the difficulty—as the Chairman said—of trying to get to a energy policy that requires something of producers, something of consumers, something of environmentalists, something of interest groups, and something indeed of fundraisers.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Wallop.

Gentlemen, we appreciate very much your testimony. You have been very helpful. It has been a good day's hearing.

Thank you.

[Whereupon, at 4:50 p.m. the hearing was adjourned.]

[The following was received for the record:]

VALTER J. HICKEL
GOVERNOR

STATE OF ALASKA
OFFICE OF THE GOVERNOR
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RGY AND NATURAL RESOU
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The Honorable J. Bennett Johnston
Chairman
Senate Committee on Energy and
Natural Resources
364 Dirksen Senate Office Building
Washington, D.C. 20510-6150

Dear Mr. Chairman:

I am writing in response to your invitation to express the State of Alaska's views on the concept of sharing a part of the revenues from Outer Continental Shelf (OCS) oil and gas development with coastal states.

The outer continental shelf is a significant resource which should be managed with care to ensure the long-term productivity of all its resources and a fair economic return to the people of Alaska and the nation. Proposals for the development of OCS energy resources must be an integral part of a comprehensive, balanced national energy policy. This policy should reflect not only the proposed uses for offshore oil and gas but also whether such offshore development is conducted in a responsible manner.

The State of Alaska has been an active and constructive participant in federal OCS activities. With the exception of the North Aleutian Shelf sale, we have supported every previous OCS sale off the shores of Alaska.

This partnership between the federal government and coastal states places obligations and responsibilities upon both parties. OCS revenue sharing is an important way for the federal government to assure adequate involvement by coastal states and to provide equity to them, so that they can ease the impact of federal development.

OCS revenue sharing will provide state and local communities the capability to assess and absorb the often significant impacts from OCS leasing and development. Without federal financial support, the ability of coastal states to effectively manage ocean and coastal resources, to participate in the OCS oil and gas leasing program, and to avoid or minimize potential adverse onshore and nearshore socioeconomic impacts associated with OCS exploration and development, will be seriously diminished to the detriment of both state and

national interests. A share of those revenues derived from use and development of a non-renewable offshore natural resource should be used to pay for the administrative costs the states incur in the leasing and permitting process, with the remainder invested in important government programs such as those designed to benefit people and affected resources.

This Committee is now considering legislation that would establish a Coastal State and Community Outer Continental Shelf Impact Assistance Fund that would provide for OCS revenue sharing. The State of Alaska strongly supports this legislation.

For the reasons outlined above, I urge this Committee to favorably consider OCS Impact Aid. Thank you for the opportunity to express the views of the State of Alaska.

Sincerely,

Walter J. Hickel
Governor

cc: Senator Malcolm Wallop, Ranking Minority Member
Senator Ted Stevens
Senator Frank Murkowski
Congressman Don Young
Secretary Manuel Lujan

STATEMENT OF

THE

NATIONAL AUTOMOBILE DEALERS ASSOCIATION

ON CORPORATE AVERAGE FUEL ECONOMY STANDARDS

BEFORE THE

UNITED STATES SENATE

ENERGY AND NATURAL RESOURCES COMMITTEE

FEBRUARY 28, 1991

Mr. Chairman and Members of the Committee:

The National Automobile Dealers Association (NADA) appreciates the opportunity to comment on the CAFE provisions contained in S. 341, the National Energy Security Act of 1991. NADA is a national trade association representing over 20,000 franchised new car and truck dealers across the country. NADA members are primarily engaged in the retail sale of new and used motor vehicles, both foreign and domestically produced. They are also engaged in automobile service, repair, and parts sales. NADA membership is comprised of small independent business people, located in communities across America and on the average employ 35 workers per dealership. It should be noted that the automobile industry has not escaped the economic recession that the United States is currently experiencing. New passenger car and light truck sales declined approximately five percent in 1990 from 1989 levels. As a result, over 900 automobile dealerships nationwide went out of business in 1990.

In 1975, Congress adopted the Energy Policy and Conservation Act (EPCA) which established an automotive fuel economy regulatory program designed to compel vehicle manufacturers to produce more fuel-efficient passenger cars and light-duty trucks. In the Act, Congress specified across-the-board fuel economy standards for all manufacturers beginning in 1978, culminating in a 27.5 mpg standard for 1985 and subsequent years. At that time, NADA supported the passage of the CAFE law. We felt that the proposed standards were

attainable, while providing the automobile manufacturers with sufficient lead time and flexibility to meet the standards.

Due to recent concerns regarding national energy security, Congress and the Administration are once again beginning to take a hard look at developing a national energy strategy. To help safeguard against future energy shortfalls, Congress is investigating ways to increase energy production and reduce consumption. As we understand it, S. 341 was introduced to provide a point of departure for addressing both sides of the energy equation. The CAFE provisions were included, of course, to deal with the consumption side of the equation. While we are very concerned with some of the extreme measures that have been suggested for increasing the CAFE standards, we feel that additional improvements can be made. We believe, however, that the question of CAFE increases should be considered in the context of an overall energy policy effort and not as an independent free-standing bill.

For that reason, we support the efforts and approach taken by Senators Johnston and Wallop in S. 341. NADA supports a number of the elements contained in Title XI of S. 341. NADA supports granting the Secretary of Transportation the authority to conduct a rulemaking to determine the "maximum feasible" CAFE level. We feel that a proper resolution of the issue is much more likely if the technical expertise and continuing review capabilities of the Department of Transportation are utilized. The informational base

of the agency will be expanded even further by the upcoming CAFE study being conducted by the National Academy of Sciences which is reviewing the level of CAFE improvement that can be attained through the use of fuel economy technologies. In addition, the Secretary can examine the trade-offs between fuel economy improvements and other critical factors which include lead time, size mix, emissions requirements, safety standards, and the economic impact on the automobile industry. NADA commends Senators Johnston and Wallop for recognizing that technological feasibility and economic practicability must be taken into consideration when looking at establishing realistic "maximum feasible" CAFE standards. We do, however, doubt the wisdom and fairness of establishing a "patchwork" CAFE program in which each manufacturer is required to achieve a different level of fuel economy.

Despite some differences between manufacturers on specifics, the entire industry is together in its opposition to any increase in CAFE that is so excessive as to cause injury to the already weakened automotive sector of our economy. Some legislative proposals introduced in the House and Senate to increase CAFE standards are extreme and do not attempt to balance fuel economy gains with other criteria identified in S. 341. For example, under Senator Bryan's bill, S. 279, manufacturers are required to increase their CAFE standards 20 percent by model year 1996, and 40 percent by model year 2001. We are convinced that standards at this level would severely curtail production of many vehicles

presently being manufactured. The car manufacturers have advised NADA that these dramatically higher fuel economy requirements can not be achieved through the use of currently available technology without reducing the weight and size of vehicles and restricting model availability. To avoid CAFE penalties, automakers would be forced to restrict the production of most family-sized vehicles including mini-vans, station wagons, large and medium-sized four-door sedans, as well as light-duty trucks.

Although NADA does not have access to information on manufacturer product plans and CAFE projections, our members do have first-hand knowledge of consumer demand in the marketplace. Families will continue to demand large and medium sized vehicles. Not only do these vehicles more adequately meet the family transportation needs, they also have been demonstrated to provide greater vehicle safety. Vehicle utility, convenience, and safety will continue to be major considerations in consumers' purchasing decisions. A number of organizations whose members depend on a wide variety of vehicles for their personal and professional needs have also expressed a concern over the downsizing of cars and trucks that would be necessitated by this legislation. Businesses, agricultural interests, and citizen groups are but a few of the organizations who have expressed concerns over the effects of dramatically higher fuel economy standards.

Clearly, restricting consumer choice was not the intention of Congress when it enacted the original Energy Policy and Conservation Act of 1975. The Committee report to the House-passed version of the EPCA specifically addressed these concerns:

> "...the automotive industry has a central role in our national economy and that any regulatory program must be carefully drafted so as to require of the industry what is attainable without either imposing impossible burdens on it or unduly limiting consumer choice as to capacity and performance of motor vehicles." (H.R., Rep. No. 94-340, 94th Congress, 1st Session 87, 1975) (Emphasis added.)

Supporters of dramatically higher fuel economy standards have taken a position that the standards can be achieved without downsizing. Further, they have suggested that even if downsizing is necessary, consumers will buy the downsized vehicles because these vehicles will be the only product for sale. In the long run, this may be true. However, in the short term, the automobile industry will suffer greatly. When family and business consumers come to a dealer's showroom looking to replace their current vehicle and find that no product is available which meets their transportation needs, many will decide to retain their current vehicle for several years. This will result in a dramatic slowdown in new car and truck sales. Hundreds of small business dealers will be forced to close their doors and their employees will be out of a job.

The success and well-being of an automobile and truck dealership is very sensitive to new vehicle sales. This is true because of the nature of the business. In the retail new car and truck business, the manufacturer does not sell cars to the ultimate consumer. Independent small business dealers sell the vehicles to consumers. A dealer actually purchases vehicles from the manufacturer and finances these vehicles until they are sold. In the automobile business this financing arrangement is known as floorplanning. Historically, dealers have floorplanned their inventory at interest rates of one to two percent above prime. If the vehicles do not sell, dealers will be forced to finance them for long periods of time. It doesn't take long for a dealer's profit margin to be completely eroded, and after that, a dealer's loss mounts each day. With the average dealer operating on less than one percent profit of gross revenues, a dealer can go broke during even a relatively short period of depressed new car sales.

We sincerely believe that the standards proposed in S. 279 are excessive and could result in widespread consumer dissatisfaction, disruption in both automobile manufacturing and retailing, and dislocation in the work force of manufacturers and dealers alike. NADA feels that additional fuel economy improvements can be achieved. We hope that Congress and the automobile industry can work together to structure a realistic program that will not jeopardize consumer needs, the health of the industry, and the job security of thousands of its workers.

Mr. Chairman and members of the Committee, once again we appreciate the opportunity to comment on Title XI of S. 341, and we will be happy to provide any assistance that the Committee might need in its deliberations on this matter.

CHEMICAL
MANUFACTURERS
ASSOCIATION

WRITTEN STATEMENT

OF THE

CHEMICAL MANUFACTURERS ASSOCIATION

BEFORE THE

SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

ON

TITLE VII OF S. 341, the "NATIONAL ENERGY SECURITY ACT"

MARCH 11, 1991

2501 M Street, NW 202-887-1100
Washington, D.C. 20037 Telex 89617 (CMA WSH)

The Chemical Manufacturers Association (CMA) strongly opposes Section 7001 of S. 341, the Oil Security Premium. CMA is a non-profit trade association whose members represent over 90 percent of the productive capacity for basic industrial chemicals in the United States.

CMA supports filling the Strategic Petroleum Reserve and ensuring that the Department of Defense has adequate supplies of petroleum and refined petroleum products for future needs. However, the chemical industry is concerned that the approach taken in Section 7001 will pose serious threats to the national economy rather than increase our country's overall strength.

The chemical industry is a major consumer of energy for both fuel use and feedstock use. We support government policies that enhance adequate supplies of energy at competitive costs. The industry opposes policies that restrict energy supplies, unilaterally increase energy prices, and impair the competitiveness of United States manufacturing by artificially increasing domestic energy costs.

Currently there is much discussion of "cheap energy" in the United States. In these discussions, most people focus on the price of gasoline and not the price of all forms of energy. We agree that gasoline in this country is not taxed at the same levels as most other industrial countries. But the difference in the level of taxes imposed on gasoline should not be the basis upon which a comprehensive energy policy is determined. Congress should carefully examine the impact of unilaterally imposed higher prices for energy on all sectors of the economy. In addition, the cost of energy in the United States will be significantly increased by the Clean Air Act that became law last fall. The Clean Air Act will increase the total cost of using energy, and it is this total use cost that should be considered rather than just the purchase price. Environmental laws and regulations add considerably to the total cost of using energy that is not reflected in its purchase price.

The chemical industry depends upon competitive prices of energy in order to compete in international markets. Increased fuel use and feedstock costs will have a negative impact on exports of chemicals which provided a positive trade surplus in 1990 of $16.5 billion. Energy-intensive industries, such as the chemical industry, that must compete against foreign production will be particularly disadvantaged by the set-aside provision embodied in Section 7001. A tax-in-kind levied on petroleum products also can impose a major cost increase on downstream industries that use these products as raw materials for their production processes.

Following on the heels of the Clean Air Act, the added costs arising from a tax on imported petroleum products, currently estimated at ten percent, would adversely affect the U.S. chemical industry. U.S. domestic chemical production and chemical exports would soften and chemical imports would rise as U.S.-based production becomes less competitive with foreign production. This loss of competitiveness will reduce chemical industry growth and result in the loss of nearly 13,000 jobs. This job loss would be most severe in the states where plastic

resins, synthetic rubber, and other petrochemical production is based. This job loss would also impact approximately 9,400 jobs in other industries. (An in-depth analysis of the impact of the oil security donation is attached.)

In addition to the economic impact of Section 7001, there are many serious questions about how the program would work. Section 7001 calls for a donation of petroleum and petroleum product in an amount to be determined by the Secretary of Energy to provide for filling the Strategic Petroleum Reserve (SPR) and for Department of Defense needs. However, there are a number of petroleum products that are imported but not stored in the SPR and have no use to the Department of Defense, i.e., naphtha. How are these products to be treated? Will they be exempt from the requirements of Section 7001? Or will a donation still have to be made, and in what form?

The United States domestic chemical industry imports a number of basic chemicals for use as feedstocks. The inclusion of such chemicals in the donation requirements for petroleum products will increase the cost of production for those who rely not only on imported feedstocks, but the donation will also increase the cost of domestic feedstocks. This increase in cost to United States manufacturers will not apply to our foreign competition. Has this impact been considered?

Oil import donations may be inconsistent with international trade agreements, in particular GATT, as they discriminate against foreign oil and petroleum imports. What consideration has been given to this question? The domestic chemical industry will suffer from higher costs as a result of Section 7001; and it is possible that any trade relief granted our trading partners would come at the expense of the U.S. chemical industry.

A border tax, such as the oil security donation, would be difficult to apply. Under terms of a free trade agreement, Canadian petroleum and petroleum product could not be covered by the donation. The same will be true for Mexican supplies if a similar free trade agreement is successfully negotiated with Mexico. A number of other countries may be exempted as one of the goals of the National Energy Strategy is to encourage oil development in developing countries. Oil markets may be further destabilized by applying donation requirements to supplies from some countries and not others. In fact it is possible that domestic oil prices could be impacted by imports from countries that are not covered by the requirements of Section 7001.

In conclusion, CMA remains strongly opposed to oil import restrictions in any form: tax, fee, quota, price floor, or oil security premium. Imported oil and petroleum products are necessary components of our economy. We agree with comments made by Admiral Watkins, the Secretary of Energy, on the subject of imported oil. The United States needs to focus on developing a diverse supply of oil instead of using artificial means to increase the price of energy.

AN ANALYSIS OF TITLE VII OF THE NATIONAL SECURITY ACT OF 1991 (S. 341)

Prepared by:
The Federal Government Relations Department
Chemical Manufacturers Association
March 8, 1991

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SUMMARY

The National Energy Security Act of 1991 (S. 341) would require importers of crude oil and refined petroleum products to contribute a share of their imports, currently about 9 percent, to the Federal government. Essentially, the set-aside is a tax-in-kind on imported crude oil which would increase oil prices by about 10 percent. The U.S. chemical industry is a large consumer of petroleum-based feedstocks. At an oil price of $20 per barrel, this provision could increase chemical industry costs of operations by $895 million annually.

Any provision or tax that raises the cost of U.S.-based production relative to that of foreign-based production damages the international competitiveness of U.S. manufacturing. Those energy-intensive industries that use petroleum products both as a fuel and as a raw material (like the chemical industry) will be especially hard hit. In the chemical industry alone, there would be estimated direct job losses of 12,900 workers. These in turn would affect some 9,400 jobs in other industries. Regionally, the greatest job losses would occur in Alabama, California, Louisiana, New Jersey, and Texas.

In effect, the set-aside or oil import tax-in-kind would subsidize imports of foreign-made goods, penalize exports of U.S.-based goods, and add to an already existing large U.S. trade deficit. There is no practical way to neutralize its harmful effects on the international competitiveness of U.S.-based production that is compatible with the General Agreement on Tariffs and Trade (GATT). Moreover, the set-aside provision would cost the U.S. economy nearly $12 billion and would most likely extend a serious recession.

Most importantly, the provision is highly regressive and regionally unfair. Low- and fixed-income households that spend a higher percentage of their income on essentials such as energy would bear a disproportionate share of the overall tax burden. Regionally, the Northeast, which is heavily dependent on imported oil would bear a disproportionate share of the nation's tax burden.

An increase in the cost of imported petroleum products cannot be viewed in isolation; its principal immediate impact will be on those industries that are also hardest hit by the recent Clean Air Act. For example, the U.S. chemical industry now pays $3.4 billion annually for pollution abatement and control and will also incur by 1995 an additional $3.9 billion of annual costs under the air toxics provisions of the Clean Air Act. In addition, the industry pays over $300 million in Superfund chemical feedstock taxes. If the set-aside is adopted, the chemical industry would be required to pay some $8.5 billion annually that is not required of our foreign competitors.

AN ANALYSIS OF TITLE VII OF THE NATIONAL ENERGY SECURITY ACT OF 1991 (S. 341)

INTRODUCTION

The following is a brief analysis of the effects of Title VII provisions of the National Energy Security Act of 1991 (S. 341) on the U.S. chemical industry and the U.S. economy. The intent of the bill is to reduce the nation's dependence on imported oil and to provide for the energy security of the nation. There are 15 titles in this bill, dealing with a wide variety of energy issues and policies. Under Title VII, a provision is made in which importers of crude oil and refined petroleum products would be required to contribute to the Strategic Petroleum Reserve (SPR) and the Department of Defense (DOD), about 9 percent of their imports, beginning in fiscal year 1992.

This 9 percent set-aside provision is in effect a tax, paid in kind, by turnover of a portion of imported petroleum products. In fact, this bill is simply another variant of an oil import tax. It is the exact equivalent of an oil import tax of about 10 percent, albeit levied in a more cumbersome manner. It will raise the prices of both imported and domestic oil by about 10 percent. The effect will be to raise the prices of all goods and services using petroleum in the product or production process.

This tax-in-kind -- or any similar variant that taxes imported oil at the U.S. border -- would also have many other different and often undesirable countervailing effects on the economy. In those instances in which petroleum products are used in the production of goods and services that do not face foreign competition (e.g., asphalt paving contracting, heating residences, providing energy for retail stores, and other services facing only local competition), increased costs may be passed on to the consumer. The resulting higher prices will, to some degree, change national consumption patterns, restrain petroleum use, and encourage investment to achieve more efficient energy use. The required adjustments among producers of goods and services that do not face international competition will primarily be internal to the U.S. economy and trade balances will not be much affected. To a large degree, however, these cost adjustments will place a greater burden on low- and fixed-income households because such households spend a higher percentage of their income on essentials such as energy for residential heating. Further, these adjustments would be most felt in the Northeast, where a higher share of energy is derived from imported oil. Other states that rely heavily on agriculture and forestry (e.g., Idaho, New Mexico, Montana, Georgia, and Oregon) would also be adversely affected by higher oil prices.

In those cases where petroleum is used in the production of goods that must face foreign competition -- principally the manufacturing sector -- the effects of a tax-in-kind or any similar border tax are, however, much more complex and potentially much more damaging to the U.S. economy.

Any new tax (whether it is an explicit tax in the usual sense, or a tax-in-kind such as a 9 percent set-aside provision) that raises the cost of U.S.-based production relative to it foreign competition damages the international

competitiveness of U.S. manufacturing. Reduced competitiveness of U.S. manufactures increases imports, decreases exports, and costs manufacturing jobs. Energy-intensive industries, such as the chemical industry, that must compete against foreign production will be particularly disadvantaged by a 9 percent set-aside provision. A tax-in-kind levied on petroleum products also can impose major cost increases on industries that use these products as raw material inputs to their production processes. For example, naphtha and gas oil are refined petroleum products that are used as raw materials -- termed feedstocks -- in the production of many chemicals and plastics.

ANALYSIS

Under Title VII of the National Energy Security Act of 1991, importers of crude oil and refined petroleum products would be required to contribute a share of their imports currently estimated at 9 percent to the SPR and the DOD. This would begin during fiscal year 1992 and would increase -- by about 10 percent -- the cost of imported oil and refined petroleum products. It would also result in equivalent increases in domestic petroleum prices and in the long-term would drive up electricity and natural gas costs. Based on $20 per barrel crude oil, the set-aside would initially cost the U.S. economy nearly $12 billion.

In 1990, the U.S. chemical industry consumed 1.2 million barrels of petroleum products per day. Over 95 percent was used as feedstocks; the remainder, as fuel. Although the industry has achieved a 47 percent gain in energy (i.e., fuel and power) efficiency since 1974, energy still represents a significant share of U.S. chemical industry manufacturing costs. For some products, energy for both fuel and power needs and feedstocks account for up to 85 percent of total production costs. In 1990, the industry spent an estimated $21.4 billion on purchases of fuel and power and feedstocks, including $9.3 billion for petroleum products. Depending on the price of oil, the additional cost (based on 1990 consumption patterns) to the U.S. chemical industry arising from a near 10 percent price increase for petroleum products would be as follows:

Cost of Oil	Additional Cost to the U.S. Chemical Industry
$15/bbl	$670 million
$20/bbl	$895 million
$25/bbl	$1120 million

For simplicity's sake, a $20 per barrel cost of oil is assumed in all subsequent analysis in this paper. At the individual product level, a 9 percent set-aside provision on imported petroleum products would raise the cost of U.S.-based chemical production vis-a-vis that of competing nations. Table 1 shows base U.S. and Western European prices for a select group of feedstocks and chemicals within the ethylene chain of petrochemicals as of early-February, 1991. The adjusted U.S. price, reflecting a near 10 percent increase in the cost of feedstocks and related fuel costs is also shown for comparative purposes.

TABLE 1

PROJECTED COST IMPACT OF S. 341 ON INDIVIDUAL CHEMICALS
OIL AT $20/BBL
($/metric ton)

Chemical	Western Europe Price	Base U.S. Price	Adjusted U.S. Price	U.S. Price % Increase
Naphtha	$228	$214	$235	9.9 %
Ethylene Glycol	$585	$562	$593	5.5 %
Styrene	$725	$692	$733	5.9 %
Phenol	$605	$606	$642	5.9 %
PVC	$725	$605	$633	4.6 %

Source: Chemical Week, CMA analysis

A key characteristic of the chemical industry is its extreme complexity, encompassing thousands of products, largely industrial intermediates that are further processed into industrial and consumer products. Most of basic U.S. petrochemical production is concentrated on the Gulf Coast, whereas downstream production and the majority of downstream derivative markets are located on the East Coast and in the Midwest. As a result, U.S. petrochemical producers incur transportation costs to each of the major U.S. markets. Foreign producers, especially those from Western Europe and the Middle East, are able to reap the scale economies available in ocean transport and may have lower transportation costs to the important East Coast markets than do domestic Gulf Coast producers. In general, it is the most efficient domestic operations that produce for exports. All things being equal, the price for downstream derivatives in export markets will be determined by the costs (including transportation) of the highest cost domestic producer whose production is required to meet demand. Unilateral taxes in kind that are imposed in the United States will increase the "delivered" cost of U.S.-produced chemicals but not those of competing foreign producers whose products will become more competitive, especially in East Coast markets.

U.S. producers would attempt to raise prices in response to increased feedstock and related production costs. However, this would open the domestic market to increased penetration by foreign producers whose costs are not affected by a tax-in-kind on imported petroleum products. This would allow foreign producers to become price leaders in some U.S. chemical markets. Imports would increase, and some higher cost domestic operations would be forced to close. Attempts to recoup costs by raising prices will cause some operations to be non-competitive in a global market with a resulting loss of exports.

INDUSTRY IMPACT

Following on the heels of the costly new Clean Air Act provisions -- the effects of which have not yet been felt on U.S. competitiveness -- the added costs arising from a 10 percent tax on imported petroleum products clearly would adversely affect the U.S. chemical industry. Chemical exports would soften and chemical imports would rise as U.S.-based production becomes less

competitive with foreign production. As shown in Table 2, this loss of international competitiveness will reduce chemical industry growth, with the constant dollar value of 1994 output (on a value-added basis) estimated at 1.2 percent below the base case (without such a tax increase). This lower output would result in reduced marginal productivity of labor and in nearly 13,000 fewer chemical industry jobs by the late-1990s. Indeed, chemical industry employment would actually stagnate for a period of several years. Prices in 1994 for chemical industry output would rise at a pace 0.7 percent higher than in the base case. Cost pressures would be most felt in the petrochemical segment of the industry as Table 1 indicated.

TABLE 2

PROJECTED IMPACT OF S. 341 ON
CHEMICAL INDUSTRY OUTPUT, EMPLOYMENT, AND PRICES
OIL AT $20/BBL

	Value of Output * (billion 1982 dollars)			Employment (thousand employees)			Prices (annual % change)		
		Tax in			Tax in			Tax in	
Year	Base	Kind	% Diff.	Base	Kind	Diff.	Base	Kind	Diff.
1990	$77.7	$77.7	0.0%	1086	1086	0	0.7%	0.7%	0.0%
1992	$81.0	$80.4	-0.7%	1091	1088	-3	4.5%	4.9%	+0.4%
1994	$85.2	$84.1	-1.2%	1096	1088	-8	4.4%	5.1%	+0.7%
1996	$89.3	$88.1	-1.3%	1101	1089	-12	4.2%	4.8%	+0.6%
1998	$93.4	$92.1	-1.4%	1106	1093	-13	4.0%	4.1%	+0.1%

* Value-Added in billions of constant 1982 dollars.

Chemical industry employment would be most adversely affected in several states where production of plastic resins, synthetic rubber, and other petrochemical derivative is focused. As shown in Table 3, estimated chemical industry job losses would total 12,900 workers. These in turn would affect some 9,400 jobs in other industries. The states that would be especially hard-hit include Alabama, California, New Jersey, North Carolina, Ohio, and Texas.

TABLE 3

PROJECTED CHEMICAL INDUSTRY JOB LOSSES FROM S. 341 BY STATE
OIL AT $20/BBL
(number of workers)

State	Job Losses		
	Direct	Indirect *	Total
Alabama	300	350	650
California	1375	350	1725
Georgia	350	475	825
Illinois	825	700	1525
Louisiana	450	200	650
Massachusetts	300	300	600
Michigan	375	225	600
New Jersey	1425	1275	2700
New York	675	125	750
North Carolina	425	775	1200
Ohio	1025	925	1950
Pennsylvania	625	350	975
South Carolina	350	550	900
Texas	1400	750	2150
Others	3000	2100	5100
Total	12900	9400	22300

* Indirect job losses arising in other industries from cutbacks in the chemical industry.

It is important to recognize that the cost disadvantages to U.S.-based production that would be added by a 10 percent tax on imports of petroleum products cannot be viewed in isolation. The principal impact would be on those industries that are hardest hit by a series of environmental regulations, most recently the Clean Air Act. The U.S. chemical industry spent over $3.4 billion for pollution abatement and control in 1989, much more than chemical industries in other nations. Moreover, these pollution abatement costs will continue to rise. The air toxics provisions of the Clean Air Act alone are expected to increase annual costs by an estimated $3.9 billion by 1995. In addition, the industry also pays over $300 million annually in Superfund chemical feedstock taxes, a program that no other nation has enacted. Combined with the additional $895 million arising from a 9 percent set-aside provision, the chemical industry would thus incur annual total costs of $8.5 billion from "energy tax" and pollution control measures.

The large current expenditures plus those already set in motion by the Clean Air Act already impair the U.S. chemical industry's international competitiveness and its ability to fund research and development and capital spending for new, more modern and more productive capacity, the true propellants of longer term future productivity growth, international competitiveness, and job creation. Adding still more cost increases to U.S.-based production will result in further cost to U.S. jobs and international competitiveness.

NATIONAL PETROLEUM REFINERS ASSOCIATION

Founded 1902

SUITE 1000, 1899 L STREET, N.W., WASHINGTON, D.C. 20036
TELEPHONE (202) 457-0480

URVAN R. STERGIOLS
President

March 11, 1991

The Honorable J. Bennett Johnston, Chairman
Energy & Natural Resources Committee
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

Enclosed please find written testimony in lieu of an oral presentation on behalf of the National Petroleum Refiners Association at the hearing this afternoon on Title VII of the National Energy Security Act of 1991, S.341. We are especially interested in the portion of this bill dealing with the filling of the SPR and providing the Department of Defense with its fuel requirements which we view essentially as an oil import fee mechanism, to which we have long and consistently objected. We trust that the proposed Title VII will provide a basis for continuing dialogue on this vital subject and a solid foundation on which a constructive program for fulfillment of the SPR's objectives can be achieved.

Sincerely,

Urvan R. Stergiols

Enclsoure

NATIONAL PETROLEUM REFINERS ASSOCIATION

SUITE 1000
1899 L STREET, N.W.
WASHINGTON, D. C. 20036

COMMENTS OF

THE NATIONAL PETROLEUM REFINERS ASSOCIATION

ON TITLE VII OF

THE NATIONAL ENERGY SECURITY ACT OF 1991, S.341

SENATE ENERGY COMMITTEE
MARCH 11, 1991

The National Petroleum Refiners Association (NPRA), representing virtually all petroleum refiners and petrochemical manufacturers in the United States, is strongly in opposition to the provisions of Title VII of the National Energy Security Act of 1991, S.341. The portion of this bill dealing with the filling of the SPR and providing the Department of Defense with its fuel requirements is essentially an oil import fee mechanism, to which we have long and consistently objected.

It is the view of NPRA that what has been proposed is confiscatory in nature, uneven in application and unnecessary. Refiners and other importers who would have to surrender the equivalent of nine percent of their imported oil, on average, would receive no compensation for this loss. The effects would be uneven, dramatically increasing the costs for those who import more over those who import less. As a result of location and requirements, many refiners have no alternative but to import, since the United States is growing less self-sufficient in petroleum every day. This is an oil import fee, and these provisions would quickly result in domestic crude oil prices rising towards the highest marginal crude oil cost of the most adversely affected refiners and importers. The disparate effects of such an "SPR oil import fee" would immediately raise cries for special exemptions and for a new "entitlements" program to level the effects of this confiscatory proposal. Those consumers in areas of the nation most dependent on imported supplies would suffer a disproportionate cost increase, such as the Northeast and the Middle Atlantic states.

The crude oil requirements for SPR are estimated to be at least 220,000 barrels per day, and the DOD petroleum product requirements are 500,000 barrels per day. Because of this, the direct effect of Title VII of the bill would be that refiners and importers would contribute, on average, 9 percent of imports at a cost estimated to exceed $5 billion per year. When the effects of increased import costs are reflected in domestic crude oil prices, the total impact escalates to about $12 billion annually, increasing oil costs to consumers by 9 to 10 percent. Such a large increase in energy costs would further slow the U.S. economy and serve to increase inflation.

This proposal for "donation" of oil for SPR and the Defense Department has serious implications for all of NPRA's members, in both the refining and petrochemical manufacturing business. Such a fee would force capital investment in refining and petrochemical facilities to be made outside of the U.S., even more than is so under the growing requirements for environmental protection required in the United States. The market share of the U.S. in both of these sectors would decline if such a scheme were enacted. In addition, an import fee on crude oil would necessitate a higher fee on imported refined products to allow domestic refining and downstream industries to remain competitive. This would require a new and complex tariff structure (even if it were resolved through differentials, it would still be a de facto tariff), which would raise GATT objections and possible retaliatory actions by trading partners. This "national energy security" proposal, in our opinion, undermines rather than enhances national security because it would further weaken our manufacturing infrastructure.

Several segments of NPRA's membership would be particularly adversely affected. First, a large portion of the fuel requirements of the Department of Defense is procured by the Defense Fuel Supply Center from smaller refiners spread across the nation. For many of them, these sales of fuel to the military represent their primary refinery production in terms

of profitability and yield. To suddenly require that importers yield a portion of their imports of crude oil or-equivalent products to meet the 500,000 barrels per day requirements of the DOD for fuel would eviscerate the economic basis of these refiners.

Second, petrochemical manufacturers which we represent normally operate in worldwide markets, from which we in the industry and the U.S. Government as well have tried to remove all obstacles in the path of free trade. This bill, if enacted into law, would obliterate that progress by making petrochemical manufacturers in the United States pay the highest raw material costs, thereby making them uncompetitive. At a time when our petrochemical industry is making such substantial contributions to the balance of trade, its competitiveness would be eliminated with a stroke of the pen. A solution often offered for this problem is credits for exports, but this would not actually work, since the entire cost base of petrochemical feedstocks would have been increased above comparable world market levels.

Now that we have briefly discussed the serious adverse impacts of this SPR fill proposal on the operations of our members, it is time to examine the public policy basis for the SPR and for military fuel requirements. These are national needs, not the particular needs of the oil and chemical industry. It is the public that consumes the products that we manufacture, and it is the nation's economy that requires these products to continue to fuel its growth. The nation as a whole benefits from a reliable supply of petroleum in an emergency and to support military operations, and thus, the funds for such programs as the SPR and DOD fuel requirements should come from the general revenues.

We have seen a long tradition of such funding being derived from general revenues. We understand the pressures of today's budget process where one good but costly idea must be funded within the same legislative proposal by equivalent savings. In this case, the price is far too high. The damage that this proposed method of financing would cause to refiners, petrochemical manufacturers, and the public, who would bear much higher costs as a result of the structural weakening of these manufacturing industries, would be too great. We support the concept of the strategic petroleum reserve, and have agreed that storage of crude oil in other than government-owned salt caverns could be undertaken if it is shown to be cost-effective relative to current crude storage. DOE's careful review of the leasing option is most appropriate at the current time. In fact, we would suggest that this is an ideal time to discuss, with some of our allies in the Persian Gulf and elsewhere, the dedication of some of the apparent surplus crude oil production to the SPR, perhaps in repayment for some of the military "debts" remaining from the war with Iraq. We do not support the establishment of regional reserves of refined products, since the cost effectiveness of such an approach has not been demonstrated.

When considering how the proposed program might actually operate, we cannot imagine how the details of such a cumbersome mechanism would be resolved. It is easy to suggest that an importer would not have to physically put 9 percent of every shipment into the SPR, but the importer would have to find a willing supplier from whom to purchase "equivalent" oil to put into the SPR, or work an exchange. This will require new bureaucratic expertise, with costs beyond those associated with either the old oil import program administration or the present SPR program. We trust that the proposed Title VII will provide a basis for continuing dialogue on this vital subject and a solid foundation on which a constructive program for fulfillment of the SPR's objectives can be achieved.

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WILLIAM W. HOGAN
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March 19, 1991

Senator J. Bennett Johnson
Committee on Energy and Natural Resources
212 Hart Building
Washington, DC 20510

Dear Senator Johnson:

I write in response to your request for testimony on S. 341, the National Energy Security Act of 1991. In particular, I wish to provide supporting information relevant to the consideration of Title VII concerning the Strategic Petroleum Reserve. Title VII would require importers to contribute products or pay an equivalent fee of approximately 9% of the value of their imports.

The effect of this provision to recognize part of the true costs of oil imports. There are many hidden costs of oil consumption that make the current market price in the United States less than the true cost to the nation. A role for government is to internalize the hidden costs of oil, which could be handled through a tariff on imports or through related provisions such as Title VII.

Although there is great debate about the magnitude of the hidden costs, it is possible to describe the major elements of the oil market that create burdens for the nation not typically considered in making the decisions that determine the market price. Considering the costs of sudden supply interruptions, impacts on world prices, and so on, estimates of the oil import tariff needed to internalize the external costs approaches $10 per barrel of oil.

This tariff estimate substantially exceeds the implicit 9% charge that you estimated for the Title VII requirements. However, the Title VII provision works in the correct direction and it is consistent with the objective of moving towards paying the full cost of oil imports.

For your information, I have enclosed two supporting papers that I hope you will include in the record. These papers provide more detail on the analysis of oil tariffs and the estimate of $10 per barrel as the amount needed to fully capture all the costs of imported oil.

Sincerely,

William W. Hogan

Enclosures:

H. G. Broadman and W. W. Hogan, "Oil Tariff Policy: An Overview," Energy Systems and Policy, Vol. 12, 1988.

H. G. Broadman and W. W. Hogan, "Is an Oil Tariff Justified? An American Debate: II. The Numbers Say Yes," The Energy Journal, Vol. 9, No.3, 1988.

Energy Systems and Policy, Volume 12, 63–68
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Oil Tariff Policy: An Overview

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U. S. Senate
Government Affairs Committee

A tariff on U.S. oil imports is justified by the special characteristics of oil and oil markets. Unlike other commodities, oil production and prices have been manipulated successfully by foreign producers for protracted periods. Moreover, unlike most other products, the price and availability of oil significantly affect macroeconomic variables such as our trade balance, the rate of inflation, and the aggregate level of economic activity. And, more than most commodities, oil is crucial to our national security. For these reasons, the full cost of U.S. oil imports is not reflected in the price we pay in the world market. The gap between the true cost of oil to the nation and the market price justifies imposition of an offsetting tariff.

Beleaguered domestic oil producers have called for a tariff on imported petroleum supplies. Such a protectionist measure would, in effect, provide them with price guarantees in the face of soft market conditions. Behind the producers' argument is the belief that world oil prices will remain low for a sustained period of time and that, as a result, there will be an appreciable decline in U.S. exploration, development, and production activity, posing a major threat to the future viability of the U.S. oil industry.

The most recent data available for the United States confirm that these forces are very much at work. Total demand for petroleum increased by about 2.6 percent in 1986. Domestic production of crude fell off by 300,000 barrels a day. Imports of crude and refined products rose by about 19 percent, averaging over 6.0 million barrels a day (mmbd), the highest level since 1980. Total imports thus reached about 37 percent of U.S. demand. Persistent soft market conditions will exacerbate these trends. Substantial reductions in drilling activity—the domestic rig count has dropped from approximately 4500 in October 1981 to about 800 in October 1986—should result in continuing declines in U.S. crude production in the years ahead.[1]

Notwithstanding the development of the Strategic Petroleum Reserve (SPR), U.S. government response to the problem of energy security since the late 1970s has been primarily one of laissez faire. The roots of this free market policy lie partly in the costly experience with price controls in the early and mid 1970s, and with good reason. But the result, placing all of our energy security eggs in one basket—the SPR—is too narrow an insurance policy for the nation. The re-

emergence of volatility in oil prices has rekindled this concern and renewed the search for policy instruments to supplement the SPR. An import tariff has been the most frequently mentioned tool. Indeed, such arguments were advanced when oil prices were high.[2]

The idea of applying a tariff to U.S. oil imports is not new. However, the usual argument made by economists in support of such a policy does not derive from the notion of protecting the U.S. oil industry, but rather from the objective of insuring that the United States consumes the "optimal" level of imported oil, i.e., where the nation's benefit from oil imports is maximized.

The difference between the total cost of oil imports and the market price is known as the oil import premium. Transitory variations in market conditions—gluts as well as shortages—will alter the magnitudes and signs of individual components of the premium, but the total value of the premium need not vary appreciably.

There are two sets of market imperfections that comprise the premium. One of these is the "economic component" of the premium. The other portion of the premium is the "security component."

The Economic Component

Because the United States is a large oil purchaser in the world market, the price we pay for oil imports is not in dependent of how much we buy. The greater the volume of oil imports, the higher the price, and vice versa. Importantly, this means that a given increase in U.S. demand for oil imports leads to a higher price that all pre-existing U.S. oil importers must pay. Thus, not only does the party responsible for the increase in oil import demand cause it to face a price that is higher than what it otherwise would pay, but also its contribution to demand affects the price that must be paid by all other U.S. oil importers.

This "monopsony" element of the economic component of the premium can be illustrated using a simple numerical example. Suppose U.S. oil imports stand at 4 mmbd and the world price is $18.00 per barrel. Now assume that if U.S. oil import demand were to increase by 1 mmbd, the price would rise to $20.00 per barrel. The total oil import bill for the United States would increase from $72 million to $100 million per day. The total cost to the United States of each of the additional one million barrels would be $28.00 per barrel. However, the private cost of the marginal barrel would be only $20.00, the market price. Thus, in effect, the United States would pay a premium of $8.00 for the last barrel imported.

In addition to the monopsony wedge element, there are two other elements that comprise the economic component of the oil import premium. The first is perhaps the more obvious. Changes in the price of a commodity like oil, so central to an industrial economy, will have a direct effect on the general price level, all other things equal. A long-run trend of rising (falling) oil prices will increase (reduce) the rate of inflation. To the extent that large reductions (increases) in GNP are needed to reduce (increase) inflation, purchases of imported oil generate "externalities"; that is to say, buyers of imported oil do not pay a price that recognizes that their purchases imposes macroeconomic costs.

The other element of the economic component of the premium arises from the

general terms of trade. To maintain our trade balance in the face of an increase in the total payment for imported oil, either an increase in U.S. export earnings or a decrease in U.S. import expenditures on non-petroleum products would be required. Accordingly, the dollar exchange rate would adjust, making U.S. exports more competitive on the world market and imports more expensive for U.S. consumers. Since at equilibrium total imports available to the U.S. economy would be reduced and U.S. exports would increase, domestic consumers are made unambiguously worse off. The purchaser of the incremental barrel of imported oil does not fully consider this "terms of trade" effect, which is spread across the economy.

The Security Component

At the most fundamental level, the security component of the premium reflects external costs that stem from sudden, unanticipated and large changes—in a word, disruptions—in the relative price of oil. There are two elements of the security component. The first might best be thought of as reflecting the extent to which the economy is exposed, or vulnerable, to an increased transfer of wealth abroad and its attendant macroeconomic and trade balance costs. This vulnerability is directly a function of the volume of imports prior to a disruption. The larger the import level at the disruption's start, the greater the externalities associated with the wealth transfer for any given price rise. Secondly, the greater the level of imports, the larger the likely price increase, which further adds to the security costs.

Because disruption costs are largely macroeconomic in nature, the benefits of shockproofing are not appropriated solely by those making the investments. That is to say, these types of investments have "public good" characteristics.

The Total Premium

The magnitudes of the economic and the security components of the premium are both influenced by the level of oil imports. Therefore, in estimating the magnitude of the total premium, the sizes of the various components should be determined simultaneously, taking into account the interactions and complementarities between them.

Previous estimates of the total premium span a wide range, from as low as $2.00 per barrel to as high as $124.00 per barrel.[3] However, most of the analytically supportable estimates fall between $2.00 per barrel and $15.00 per barrel. Given the wide-ranging impacts of an oil import fee, many factors could affect the estimate of the optimal tariff. While more could be done to take the best from each analysis, the alternative evaluations of the aggregate costs and benefits of an oil tariff are remarkably consistent. Broadman and Hogan examined a wide range of other assumptions and produced a distribution of optimal tariff estimates as shown in the Figure.[4] Given the complexity of the political debate, the $10 per barrel median estimate meets the "round number" test and is at the upper end of practical feasibility. Hence the focus should be on the other arguments that counter or weaken the force of the economic analysis.

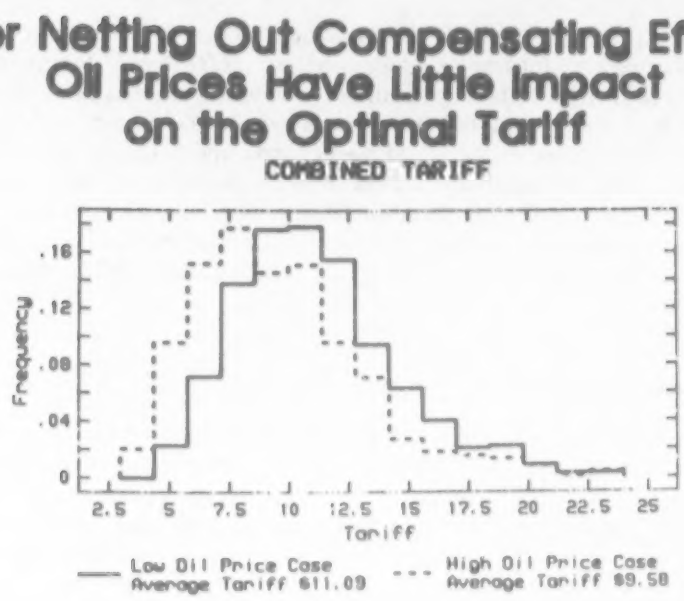

Figure 1.

Objections to the Tariff

A few objections to a tariff are appealing on the surface, but seem flawed underneath. For example, a tariff would reduce the U.S. competitive position abroad. True, but this is part of the solution, not the problem. To the extent that U.S. industry is buying oil at less than the cost to the nation, embedding the oil in other products and selling the embedded oil at less than its cost, the nation is subsidizing a bad business. Another such argument is that an oil tariff is a "drain American first" program. Without taking up the full complexity, the intertemporal problem can be seen as one of timing the conversion away from oil, not just imported oil. In the extreme, if imported oil is expensive or dangerous enough, there is no necessity to import. It is a matter of cost. The intertemporal problem is one of balancing those relative costs. The intertemporal argument is not an argument against a tariff *per se*.

More recently, the Department of Energy has argued that a tariff would produce large transition costs in the form of a macroeconomic recession due to self-inflicted inflation.[5] The DOE analysis assumes that the macroeconomic policy does not accommodate the tariff. However, the studies by the Energy Modeling Forum suggest that a careful use of macroeconomic policy can manage the adjustment and greatly reduce any transition costs.[6]

But these distractions do not exhaust the list of arguments against a tariff. Even accepting the special nature of the oil market, objections to a U.S. oil tariff

may flow from conflicting policy goals, criticism that the market analysis is overly simplistic, or practical political limitations. The principal objections fall into three general categories: (1) oil market imperfections are relatively small and, therefore, there is no significant saving by trying to correct them; (2) other trading arrangements will be compromised and, therefore, there are costs created elsewhere despite gains in the oil market; and (3) government programs to intervene in a market often go awry and an oil tariff will be part of this pattern, i.e., such a tariff will produce more costs than benefits.

Each of these arguments has merit. The first, dealing with the measurement of market imperfections, is the subject of much of this paper. The bulk of our empirical evidence points to significant imperfections and large external costs associated with the current U.S. free trade policy in oil. While there is room for debate here, the strongest case against a U.S. oil tariff lies elsewhere.

The second objection emphasizes linkages between U.S. oil trade policy and U.S. trade policy in general. Even if there are significant market imperfections associated with oil imports, opponents of a U.S. oil tariff argue that adoption of such a tariff would trigger a reaction in the trade policies of other countries. There is a danger here. If oil trade policy has a significant effect on all trade policies, then the cost of the current U.S. free market policy in oil may be the price we have to pay for free trade in other goods. A few of our oil trading partners have substantial additional trade with us. For example, a large percentage of U.S. non-oil imports come from Canada. If this trade would be adversely affected by a tariff on oil imports, then the linkage may be important.

But to the extent that use of U.S. oil tariff can be made to be seen only as a response to the initial restrictions on oil trade by foreign producers and the special instability of world oil supplies, and U.S. oil trade policy can be separated from other U.S. trade decisions, then the argument for a tariff based on measured external costs should prevail.

The final, and oft repeated, criticism of an oil tariff raises the specter of policy implementation that falls far short of the lofty ideals of policy design. An oil tariff would have a significant impact on the economy. There would be transfers from domestic consumers to domestic producers of oil.

There would be appeals for exceptions. But, the more exceptions, the less the economic saving produced by a tariff. The induced adjustments in consumption and production are the source of the economic benefits of a tariff and, therefore, any policy which exempts consumers and producers from making adjustments will correspondingly reduce these savings.

The challenge is to implement a tariff without avoiding the economic adjustments that a tariff is intended to achieve. If by assumption this adjustment process is simply too hard in the real world of the politics of special interests, then by assumption the tariff is a bad policy. But the substantial oil premium points to a large tariff as in the best interests of the United States.

Acknowledgment

This article draws from research done while Dr. Broadman was on the faculty at Harvard. The views expressed are entirely his own.

Notes

1. *Monthly Energy Review*, January 1987.
2. See, for example, Harry G. Broadman, "Review and Analysis of Oil Import Premium Estimates," *Discussion Paper* D-82C, Energy and National Security Series, Resources for the Future, Washington, D.C., December 1981; and William W. Hogan, "Import Management and Oil Emergencies," in *Energy and Security*, David Deese and Joseph S. Nye, eds., (Cambridge, MA: Ballinger, 1981); and James L. Plummer (ed.), *Energy Vulnerability*, (Cambridge, MA: Ballinger, 1982). Use of a U.S. oil import tariff actually dates back to the 1930s.
3. See Harry G. Broadman, "The Social Cost of Imported Oil," *Energy Policy*, June 1986. A new estimate is presented in Frederick M. Murphy et al., "An Integrated Analysis of U.S. Oil Security Policy," *The Energy Journal*, July 1986, pp. 67–82. See also Henry S. Rowen and John P. Weyant, "The Oil Price Collapse and Growing American Vulnerability," Working Paper, Stanford University, September 1986.
4. Harry G. Broadman and William W. Hogan, "Oil Tariff Policy in an Uncertain Market," Harvard University Energy and Environmental Policy Center, Discussion Paper, 1986.
5. *Energy Security*, Department of Energy, March, 1987.
6. "Macroeconomic Impacts of Energy Shocks: An Overview," Energy Modeling Forum, Stanford University, September 1984.

Special Feature

II. The Numbers Say Yes

Harry G. Broadman and William W. Hogan***

Rising oil imports pose a renewed threat to U.S. energy security and economic stability. In the wake of a sharp drop in prices, U.S. oil consumption rose over 16 million barrels a day in 1986 for the first time in five years.[1] In 1979, the United States imported over 8 million barrels a day (b/d) of crude oil and refined products, or 45 percent of its total needs. That oil was perceived to be vulnerable to sharp price jumps resulting from disruptions in the Persian Gulf.[2]

Fortunately, oil has continued to flow—and oil prices have nearly halved in nominal terms between 1980 and 1987. But this interlude was purchased at the high cost of a depressed world economy and a large transfer of wealth. Most examinations of the international oil market conclude that the

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1. Department of Energy, *Monthly Energy Review*, July 1987, pp. 36–37.
2. David A. Deese and Joseph S. Nye, eds., *Energy and Security* (Cambridge, Mass.: Ballinger, 1981).

This is a modified version of Harry G. Broadman and William W. Hogan, "Oil Tariff Policy in an Uncertain Market," *Discussion Paper Series*, E-86-11 (Cambridge, Mass.: Energy and Environmental Policy Center, John F. Kennedy School of Government, Harvard University, 1987). It draws from studies done while Dr. Broadman was on the faculty of the EEPC. The views expressed are entirely the authors'. Many people provided helpful comments on early drafts of this article, and we are pleased to thank them here. In addition to anonymous referees, they include Morris Adelman, Douglas Bohi, Thomas Burns, Robert Fri, Dermot Gately, James Griffin, Henry Lee, Michael Lynch, Donald Marshall, Bijan Mossavar-Rahmani, Ray Plank, Elliot Ranard, Harry Rowen, Irwin Stelzer, William Tell, Raymond Vernon, and John Weyant. All remaining errors of fact, theory, and interpretation, are solely our responsibility.

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problems of energy security and high oil prices will return.[3] In the renewed search for long-term policy instruments to reduce vulnerability, an oil import tariff has been mentioned frequently. The idea of applying a tariff to U.S. oil imports is not new. Indeed, such arguments were advanced when oil prices were high for much the same reasons.[4] As the argument goes, the price paid by U.S. consumers does not fully reflect the true national cost of imported oil.

TARIFFS AND FREE TRADE

The struggle to reduce trade barriers and promote world economic growth through expanded trade flows has been a hallmark of modern economic policy. Despite the many continuing barriers to trade, the presumption in favor of free trade has been a central component of official rhetoric. However, theorists in international economics have long recognized that exceptions to the rule of free trade may exist for particular commodities and countries where the market is not operating according to the competitive ideal. By now, standard international trade texts cite oil as the principal commodity for which a tariff may well be in the interest of the consuming countries, and the literature recognizes that an opportunity may exist for a welfare-improving tariff on U.S. oil imports.[5] Still, the pursuit of such a policy requires greater justification: the private price and the social cost of imported oil must differ substantially to establish a basis for government to intervene in the market. This difference is the cost of a free market policy, and the greater it is, the more compelling the case for government intervention.

3. Recently, several major studies and a series of related reports have addressed the questions of energy security, most notably *Energy Security: A Report to the President of the United States* (prepared by the U.S. Department of Energy [DOE] and issued in March 1987), *Factors Affecting U.S. Oil and Gas Outlook: A Report of the National Petroleum Council* (prepared by the National Petroleum Council [NPC], the federal advisory body to the Secretary of Energy, and released in February 1987), *Domestic Petroleum Production and National Security* (prepared by the industry-sponsored American Petroleum Institute [API] and released in December 1986), and *International Energy Outlook 1986* (prepared by the DOE's independent analysis arm, the Energy Information Administration [EIA], and released in April 1987). For a review of these several studies, see W. Hogan and B. Mossavar-Rahmani, *Energy Security Revisited*, (Cambridge, Mass.: Energy and Environmental Policy Center, Harvard University, 1987). For an analysis of responses to interruptions, see G. Horwich and D. Weimer, *Oil Price Shocks, Market Responses, and Contingency Planning* (Washington, D.C.: American Enterprise Institute, 1984).

4. See W. Hogan, "Import Management and Oil Emergencies," in Deese and Nye, 1981.

5. Peter H. Lindert and Charles P. Kindleberger, *International Economics*, 7th ed. (Homewood, Ill.: Richard D. Irwin Company, 1982), pp. 150, 190. For evidence of the nature of the market, see J. M. Griffin, "OPEC Behavior: A Test of Alternative Hypotheses," *American Economic Review* 75(5), December 1985, pp. 924–963.

The gap between the social and private costs of imported oil is known as the oil import premium.[6]

Hogan provides a taxonomy of the premium components of oil tariff policy.[7] We use his model to address the case of a market with low oil prices and a long-run tariff imposed to correct oil market imperfections, including the effect of oil supply disruptions.[8]

OPTIMAL TARIFF ESTIMATES

The possibility of market intervention raises an interest in identifying all the major contributors to an oil import premium. There are two sets of market imperfections that organize the analysis of the premium. One of these is the economic component of the premium. The economic component reflects imperfections arising from two facts: first, that the price the United States pays for oil on the world market is affected by the level of U.S. import demand; and second, that systematic changes in oil prices directly influence U.S. macroeconomic performance. The other portion of the premium is the "security component." The security component reflects the market imperfections associated with the total costs of oil supply disruptions and with the risks arising from vulnerability to such disruptions. The model outlined here[9] employs a comparative static framework for a "representative" year in the horizon for application of a tariff. A more subtle analysis would address the dynamics of different tariffs in different periods.

An estimate of the optimal oil import tariff depends upon many assumptions. In Broadman[10] there is a discussion of the uncertainties that result in a very wide range of estimates from $2 to $124 per barrel. To be sure, this range encompasses all arguable values for input assumptions. However, we

6. Broadman examined at least seventeen different analyses of the oil import premium. See H. G. Broadman, "The Social Cost of Imported Oil," *Energy Policy* 14 (3), June 1986, pp. 242–252. Importantly, the premium notion implies that the optimal level of U.S. oil imports may not be zero. A tariff is seen as an instrument—in addition to the Strategic Petroleum Reserve (SPR)—that addresses imperfections that are endemic to the world oil market. The premium can be interpreted as a measure of the net social benefits of reducing consumption of imported oil. Alternatively, the premium serves as a guide for how much the nation should be willing to pay for military protection of oil supplies.

7. Hogan, "Import Management and Oil Emergence," in Deese and Nye, 1981.

8. The application here is for the case of the United States. For an application of this model to the case of Canada, see M. MacRae and M. Heggeland, "Notes for Discussions of Aspects of Energy Security in Canada" (Calgary, Canada: Canada Energy Research Institute, October 1987).

9. See Appendix A. The model is available from W. Hogan as a Lotus "wks" compatible spreadsheet in conjunction with a decision tree for analysis with Decision 1-2-TREE.

10. Broadman, 1986.

Table 1. Optimal Tariff and Cost of Free Market Policy for Three Cases

	High Price	*Low Price*	*Secure Imports*
Economic Tariff	$3.25	$5.48	$5.08
Security Tariff	$7.78	$7.07	0
Combined Tariff	$11.03	$12.55	$5.08
Cost of Free Market Policy ($bill/year)	$12.44	$25.77	$2.43

can narrow the range considerably by choosing more plausible parameter values and recognizing their interactions. Notably, the model includes many uncertain parameters. We prefer to be explicit about the uncertainty rather than ignore the effect and thereby assume a zero impact. First, we examine a Base Case[11] with both High and Low Price assumptions, and then perform a risk analysis of the optimal tariff.

The Base Case assumptions produce estimates of the optimal tariff and the cost of a free market policy measured in 1985 dollars. Table 1 summarizes the optimal tariff and the cost of free market policy for three cases: High Price ($27 a barrel), Low Price ($15 a barrel) and Secure Imports (High Price but no threat of supply disruptions). It is clear that the cost of a free market policy is far greater at lower than at higher prices, and that a significant optimal tariff is called for even if all security problems are eliminated.

RISK ANALYSIS

These few sensitivity tests illustrate the principal responses of the optimal tariff calculation to changes in the input assumptions. Unfortunately, these tests do not exhaust the major uncertainties that could affect the size of the optimal tariff. Higher or lower assumptions about inflation could have a significant impact on both the quantity of oil imported and the estimate of the optimal tariff. Similarly, changes in elasticity estimates, alternative views about the probability of interruptions, or uncertainties in any of the other parameters could alter the optimal import tariff estimate.

Risk analysis of the optimal tariff estimate is designed to capture a range of possible tariff policies. Under it, the analyst specifices the uncertainties in terms of subjective probabilities for different values of the input parameters. An event tree summarizes these probability judgments. It assigns one node to each uncertainty, and the branches describe the possible alternative values for the respective input parameters. The probability represents the judgments on the uncertainty that should be applied to the sensitivity analysis.

11. See Appendix B for parameter descriptions.

Table 2. Risk Analysis: Optimal Tariff and Cost of Free Market Policy Probability Distributions (1985 $)

High Price Case ($27)				
	Lower 25 Percent	*Median*	*Upper 25 percent*	*Expected Value*
Economic Tariff ($ a barrel)	1.95	2.85	3.90	3.14
Security Tariff ($ a barrel)	3.63	5.64	8.52	6.44
Combined Tariff ($ a barrel)	7.00	8.96	11.26	9.58
Cost of Free Market Policy ($billion per year)	4.64	8.24	13.18	10.60
Low Price Case ($15)				
	Lower 25 percent	*Median*	*Upper 25 percent*	*Expected Value*
Economic Tariff ($ a barrel)	4.03	5.68	6.87	5.86
Security Tariff ($ a barrel)	2.80	4.20	6.65	5.23
Combined Tariff ($ a barrel)	8.71	10.81	11.89	11.09
Cost of Free Market Policy ($billion per year)	11.72	17.90	27.93	22.44

Given the event tree, it is easy to apply the optimal tariff model to calculate the probability distribution of the tariff components and the cost of a free market policy. Table 2 shows probability distributions from Broadman and Hogan (1986), focusing on the key sensitivity test between low and high oil prices.

TARIFFS AND THE LIMITS OF POLICY

Even accepting the special nature of the oil market, objections to a U.S. oil tariff may flow from conflicting policy goals, criticism that the market analysis is overly simplistic, or practical political limitations. Opponents typically argue against an oil tariff using a combination of related perspectives: competitiveness; robbing the future; free market ideology; costs and benefits; limits of government action; and strategic policy in international trade. These arguments range from those that have the wrong direction to those that raise legitimate issues.

First, a tariff would reduce the U.S. competitive position abroad. True, but this is part of the solution, not part of the problem. To the extent that U.S.

industry is buying oil at less than the cost to the nation, embedding the oil in other products and selling the embedded oil at less than its cost, the nation is subsidizing a bad business. Reducing this subsidy and redirecting industry towards other products is part of the solution.

Another argument is that an oil tariff is a "drain America first" program. This slogan presumes a fixed supply of domestic oil and raises a complicated issue of the relative security and value of oil over long periods. But there is a continuum of alternatives to oil (e.g., coal liquids), at a cost. The intertemporal problem can be seen as one of timing the conversion away from oil, not just imported oil. In the extreme case, if imported oil is expensive or insecure enough, there is no necessity to import. It is a matter of cost. The intertemporal problem is one of balancing those relative costs. If oil is going to be even less secure or more cartelized in the future, then this is more an argument for even larger tariffs later, which the domestic market must balance in assessing the tradeoff between current and future production. The intertemporal argument is not an argument against a tariff *per se*.[12]

The ideological perspective emphasizes the importance of free markets and an abhorrence of government action. Although this point of view lies close beneath the surface of many objections, the free market ideology overlooks the self-evident facts of the market: the existence of the cartel, the absence of true free trade in oil, the presence of major economic and security costs that go beyond the reach of markets, and so on. These characteristics of the oil market present a textbook case for government attention. The market is the most efficient way to deliver the oil to its most needed uses. But the market does not guarantee the best mix of price and stability.

A different variant of free trade ideology asks why the same arguments cannot be applied to the market for any commodity. In other words, why not coffee? Since it is taken as given that we should not interefere in the coffee market, this seems to dispose of support for an oil tariff. The answer, of course, is that it depends on the numbers. For example, the United States spends twenty times as much an oil imports as on coffee imports.[13] For sake of discussion, suppose the oil market were only one-tenth its actual size and had a higher elasticity of demand (-2 vs. $-.5$) and an instantaneous adjustment during times of disruption. Then the oil tariff would fall from $11.03 to $2.74, and the costs of a free market policy every year would be $140 million

12. Kalt analyzed the dynamics of externalities changing over time. The more complicated argument leads to different tariffs over time rather than no tariff at all. Joseph P. Kalt, "Natural Gas Decontrol, Oil Tariffs, and Price Controls: An Intertemporal Comparison," *Discussion Paper Series*, No. E-85-03 (Cambridge, Mass: Energy and Environmental Policy Center, John F. Kennedy School of Government, Harvard University, 1985), p. 19.

13. *Statistical Abstract of the United States*, 1986. Data for 1984, p. 816.

rather than $12.44 billion. If oil were more like coffee, the numbers would be different.[14]

The disagreement in the cost-benefit analysis centers on the costs. The measurement of market imperfections is the subject of much of this article. The bulk of our analysis points to significant imperfections and large external costs associated with the current U.S. free trade policy in oil. However, to the extent that there is disagreement with these estimates, a demanding standard is created for the objectors, given the robustness of our results. While there is room for debate here, the strongest case against a U.S. oil tariff lies elsewhere.[15]

An unanswered and more plausible objection to a tariff emphasizes the limits of government. Even if it is possible, in principle, to design a tariff that operates in the interest of the United States, the actual outcome will fall far short of the ideal. In practice, powerful groups will fashion exceptions or special considerations, the timing will be wrong, or administrative procedures will raise costs in ways unanticipated in the cost-benefit analysis. While these concerns are justified, they beg the real question. It is not enough to show that there will be some gap between practice and promise. To reject the policy, it is necessary to show that the imperfections would be enough to eliminate the net benefits. But with a large tariff and the relative simplicity of increasing collections on an import fee mechanism that is already in place, the imperfections seem small by comparison with the proposed benefits.

Nevertheless, the possibility of extensive exemptions and exceptions raises a significant problem. Our analysis of the optimal tariff assumes these special appeals will go unheeded.[16] A large number of exemptions and exceptions or a very small tariff would result in little gain for the economy as a whole. In that case, the fear of the costs of the impact of such a precedent on broader trade policy might carry the day. The challenge is to implement a tariff without avoiding the economic adjustments that a tariff is intended to achieve. If by assumption this adjustment process is simply too hard in the

14. Kalt estimated that a large tariff could be argued for timber imports, although the small scale of the industry kept the net benefits at $500 million per year. Joseph P. Kalt, "The Political Economy of Protectionism: Tariffs and Retaliation in the Timber Industry," *Discussion Paper Series*, No. E-87-03 (Cambridge, Mass.: Energy and Environmental Policy Center, John F. Kennedy School of Government, Harvard University, March 1987), p. 25ff.

15. The principal critique of the model above is that it ignores the short-run macroeconomic costs of imposing the tariff; see DOE, *Energy Security*, 1987. For a further discussion that disputes this conclusion, see Hogan and Mossavar-Rahmani, 1987).

16. Any exemption program involves a transfer of rents which may reduce the overall welfare of the nation. But it is possible to design the exemptions to preserve most of the incentives at the margin, thereby preserving the benefits of lower exposure to macroeconomic problems and oil supply interruptions. The key feature would be to limit the exemptions to inframarginal oil imports.

real world of the politics of special interests, then by assumption the tariff is a bad policy.

A significant part of the savings from a tariff comes from a reduction in the payments to oil exporters. In short, both the lower volume of purchases and the expected reduction in the world price contribute to the reduction in total cost to the United States, but at the expense of oil exporters. For many oil exporters, lower prices and reduced volumes will present a significant economic problem. From one perspective, these losses represent only a twist in the competition for economic rents. After all, major exporters are interfering in the market by constraining production and inflating the world price of oil. The rents they would lose are only the profits of their oligopolistic game. Consumers merely play the same game in the use of a tariff to constrain demand and depress the world price. Morality and fair play provide little guidance in the economic competition for rents.

However, given the broad interests of the United States in dealing successfully with many of the oil exporting countries, ranging from Saudi Arabia to Mexico to Canada, to impose these losses on others may be unacceptable. If this is true, then current high payments to oil exporters must be viewed as a benefit to the United States. Or at least the cost must be justified, much like other defense or foreign aid expenditures, as worth the pursuit of larger goals and values.

The international redistribution of wealth does not stop with oil exporters. Other importers of oil share in the costs paid by U.S. consumers. The higher the level of oil imports in one country, the greater the cost everywhere. Hence, the West Europeans and Japanese are paying the cost of part of U.S. oil imports, and American consumers are paying part of these countries' oil imports. If the United States imposes an oil import fee and thus reduces its demand, prices will fall for all oil importers. Hence Western Europe and Japan will enjoy a free ride on the U.S. account. This has often inhibited progress in capturing the benefits of reduced oil imports. Apparently a sense that the burden should be shared fairly has prompted arguments that the United States should not further reduce its imports without comparable action by other oil importers.

Although it is easy to understand resentment of the free riders, it is wrong to conclude that one should do nothing without a sharing of the burden. The above analysis of the optimal oil tariff assumes that the United States acts alone. If it is in the nation's interest to reduce oil imports, it should not be of concern that others are also helped. In fact, since the other major importers are allies in many respects, one might view their free ride as an added benefit of reduced U.S. oil imports.

All that seems left, therefore, is the argument that interference in oil trade will precipitate interference in trade in other commodities where the oil-importing nations have more to lose. According to this line of reasoning, oil

trade is part of a larger fabric of trade relations. Tugs and pulls on part of the fabric threaten to unravel the whole. Hence, one cannot examine the case of oil in isolation. Even if it is true that a narrow analysis of costs and benefits in the oil market shows significant gains to oil-importing countries as the result of reduced imports, the narrow analysis overlooks the strategic importance of preserving the whole fabric of trade. In other words, the analysis supporting an oil tariff assumes that the tariff would not provide the crucial straw that would tip the balance away from free trade in other commodities. If this is wrong, the gains in oil could be lost in the curtailment of economic activity through other reductions in world trade.

None of the analyses of tariffs have disposed of this last argument. And it is an important issue. If one believes it is possible to isolate trade practices in oil from practices in other sectors, then the arguments for a tariff should persuade. But if oil sets an important precedent that will apply elsewhere, a tariff may do more harm than good. Even though the cartel has already removed oil from the list of freely traded commodities, perhaps it is better for the oil importers to take their lumps and forego the net benefits that would accrue from a tariff as the price of preserving free trade elsewhere. Evaluation of this strategic issue should be the focus of attention. It is a judgment that cannot be avoided through an analysis of oil markets alone.

As a final note, our analysis of the benefits of an oil tariff makes no reference to the protection of domestic U.S. oil producers. To be sure, domestic producers will be protected by an oil tariff. But this is a by-product of the policy, not its goal. Despite the strong political emotions aroused by protectionist arguments, both for and against the oil tariff, the focus on protection *per se* ignores the maximization of national wealth. An oil tariff would maximize that wealth.[17]

It would, of course, also redistribute the wealth. But the nature of that redistribution is not easy to determine. Consumers would pay more for oil in the short run, but less in the long run, as supply interruption costs are reduced. Domestic producers would get higher prices, but higher payments for domestic oil go in part to pension funds and charitable foundations. Nor are the distributional effects on particular regions obvious. Despite the common assumption, previous studies of increasing natural gas prices have concluded that New England is a net beneficiary.[18] Oil is not so different, and

17. Similarly, the analysis is silent on the need for a tariff as a revenue mechanism. The revenue flowing to government is a by-product of the optimal tariff analysis. D. S. Bizer and C. Stewart, "The Public Finance of a Protective Tariff: The Case of an Oil Import Fee," *American Economic Review* 77(5), December 1987, pp. 1079–1122, addresses the revenue question but largely ignores the welfare calculation.

18. Joseph Kalt, Henry Lee and Robert Leone, "Natural Gas Decontrol: A Northeast Industrial Perspective," *Discussion Paper Series*, No. E-82-09 (Cambridge, Mass.: Energy and Environmental Policy Center, John F. Kennedy School of Government, Harvard University, 1982).

the redistribution across the country will be more diffuse than the first round payments to the oil patch.

CONCLUSIONS

The optimal import tariff balances the costs and benefits of oil imports. Although any operational estimate of the tariff will depend upon an array of assumptions and judgments, it is possible to make these judgments and organize them in an internally consistent set of calculations. The resulting tariff estimates are sensitive to the assessment of market conditions, but this sensitivity appears to be much less than commonly believed. There is a significant amount of interaction among the tariff components.

This complementarity and the numerical results provide a guide for action. The size of the premium is large. And a tariff is the most direct means for internalizing the premium. Our preferred set of assumptions sets the optimal tariff at about $10 per barrel. Under the High Price case, there is a 75 percent chance that the optimal tariff is at least $7 per barrel. And under the Low Price case, this estimate rises to a tariff of at least $8.70 per barrel. When compared with the usual political discussions, where the most adventuresome conversation involves tariffs that are half this range, the direction of policy is clear: higher tariffs can be justified.

APPENDIX A: COMPONENTS OF THE OIL IMPORT PREMIUM

The model used here analyzes two components of an oil import premium—an economic component and a security component.

The Economic Component

At the margin, oil imports create a number of costs that emerge from the nature of the oil market even without supply disruptions.

Inflation Changes in the price of a commodity like oil will have a direct effect on the general price level, all other things being equal. A long-run trend of rising (falling) oil prices will increase (reduce) the rate of inflation. To the extent that large reductions (increases) in gross national product (GNP) are needed to reduce (increase) inflation, purchases of imported oil generate "externalities"; that is to say, buyers of imported oil do not pay a price that recognizes that their purchases impose macroeconomic costs. The magnitude of these externalities depends on how oil import volumes and changes in oil

prices affect the underlying rate of inflation, and on the response to this inflation by macroeconomic policymakers.

If oil prices followed a smooth trend over time, then increases or decreases might be anticipated and incorporated in the underlying rate of inflation. Moreover, given full anticipation in the market, policymakers could completely accommodate them, thus incurring no loss in aggregate output. But oil prices follow an erratic path, both up and down.[19] This means that only some of the price changes are incorporated into the underlying inflation rate and that policymakers provide only partial accommodation. As a result, some fraction of oil-induced increases in inflation is removed by deliberately constricting output in the economy; therefore, inevitably, "external" macroeconomic costs are associated with U.S. purchases of imported oil.

Control of inflation has been a persistent problem in the United States. Even in the mid-1980s, with inflation at relatively low levels, there is a fear of higher inflation and the restrictive monetary or fiscal policies that would follow.[20]

Our characterization of the cost of adjustment combines two rules of thumb from macroeconomics.[21] The first is the short-run Phillips curve, which relates the change in "inertial" inflation to the change in unemployment above the "full employment", or "natural", rate. Inertial inflation refers to the anticipated rate of inflation that gets built into contracts and pricing policies. Although the estimate is uncertain, the consensus is that it takes two points of increased unemployment for a year to eliminate one point from the inertial rate of inflation.[22]

The second rule of thumb, known as Okun's law, summarizes the changes in operations that affect output and are correlated with a change in the level of unemployment. At the margin, each percentage point change in the unemployment rate has more than a one point impact on the level of output. Again, there is some uncertainty. In the 1960s, Okun's law was as high as

19. For an analysis of oil price paths and uncertainty, see William W. Hogan and Paul N. Leiby, "Oil Market Risk Analysis," *Discussion Paper Series*, No. H-85-03 (Cambridge, Mass.: Energy and Environmental Policy Centre, John F. Kennedy School of Government, Harvard University, 1985). See also M. Adelman, "An Unstable World Oil Market," *Energy Journal* 6 (1), January 1985, pp. 17–22.

20. William D. Nordhaus, "The Energy Crisis and Macroeconomic Policy," *Energy Journal* 1 (1), January 1980.

21. The analysis of the high cost of inflation follows from the summary of the arguments and evidence presented by William D. Nordhaus and Paul A. Samuelson in *Economics* (New York: McGraw-Hill, 12th ed., 1985), pp. 437–439. The principal dissent from this analysis comes from the "rational expectations" school, which argues that macroeconomic policy is fully anticipated and recessions results from voluntary unemployment. Nordhaus and Samuelson summarize the dissent as well as the conventional theory.

22. Nordhaus and Samuelson, 1985.

three points of GNP lost for each point of unemployment.[23] The more recent estimates put the ratio at closer to two to one.[24]

Long-run inflation in the price of oil will create similar inflation in the price of natural gas and other oil substitutes. If the policy is to accommodate the inflation, the resulting impact on the general price level will be in proportion to the value share of oil and related products. Let

r = oil inflation rate in real (nominal less inertial) terms
s = oil import price
q_d = domestic oil demand (millions of barrels per day, mmbd)
q_n = domestic demand for oil substitutes (mmbd)
q = oil import level (mmbd)
p = domestic price of oil and its substitutes, hence the implicit tariff is $t = (p - s)$
w = value share of oil and its substitutes
ϕ = Phillips curve ratio
β = Okun's law ratio
Π = inflation impact from oil

Then the contribution to inflation from oil is

$$\Pi = r(s/p)w$$

Now,

$$w \approx pQ(0.365)/\text{GNP}$$

where

$$Q = q_d + q_n$$

Therefore,

$$\Pi = rs(Q(0.365)/\text{GNP})$$

The change in the inflation trend caused by a change in the level of oil imports is

$$\frac{\partial \Pi}{\partial q} = (0.365/\text{GNP})\left[\frac{\partial r}{\partial q} sQ + r\frac{\partial s}{\partial q} Q + rs\frac{\partial Q}{\partial q}\right]$$

23. Sherman J. Maisal, *Macroeconomics* (New York: W. W. Norton Company, 1982), p. 447.
24. Nordhaus and Samuelson, 1985.

As Nordhaus[25] observed, full accommodation of this inflation is not likely; nor is no accommodation at all. This is essentially a policy matter, without a clear empirical guide. If we let U represent the fraction of inflation that will be eliminated through real output reductions, then the loss in real output per barrel of incremental imports is

$$t_1 = \phi\beta U\left[(r's + rs')Q + \frac{\partial Q}{\partial q}rs\right]$$

where $r' = \partial r/\partial q$
$s' = \partial s/\partial q$.

Balance of Payments Higher oil imports will lead to a deterioration in the U.S. terms of trade. To maintain a trade balance in the face of an increase in the total payment for imported oil, the dollar exchange rate would adjust, making U.S. exports more competitive on the world market and imports more expensive for U.S. consumers. Domestic consumers are made unambiguously worse off. The purchaser of the incremental barrel of imported oil does not fully consider this "terms of trade" effect, which is diffused across the economy.

Following Nordhaus[26] we assume that an increase in oil imports will lead to a partial increase in exports as foreign oil producers recycle their revenues, and a partial depreciation of the dollar to restore a balance of payments. Let

p_d = domestic price level
p_f = foreign currency price level
e = exchange rate (i.e., p_f/p_d)
s = dollar price of imported oil
X = quantity of exports
M = quantity of nonoil imports
q = quantity of oil imports in (MMBD)
n_E = price elasticity of exports demand
n_I = price elasticity of imports demand

A balance of payments (with units on a daily basis) requires

$$p_dX(p_de) - (p_f/e)M(p_f/e) - sq = 0$$

25. Nordhaus, 1980.
26. Nordhaus, 1980.

At a given aggregate price level,[27] and with perfectly elastic supply functions, the change in the balance of trade caused by a change in the exchange rate, Δe, is

$$p_d \frac{\partial X}{\partial (p_d e)} p_d \Delta e + (p_f/e) \frac{\partial M}{\partial (p_f/e)} (p_f/e^2)\Delta e + (p_f/e^2) M \Delta e - \frac{\partial s}{\partial e} \Delta e \, q$$

Suppose that B percent of any increase in oil import payments is returned by oil foreign producers through higher U.S. export purchases. Then, at the margin the change in exchange rates must satisfy $\Delta e = (\partial e/\partial q)$ and the unrecycled oil payments must just balance the shift in the balance of payments for other goods, i.e.,

$$p_d \frac{\partial X}{\partial (p_d e)} p_d \frac{\partial e}{\partial q} + (p_f/e) \frac{\partial M}{\partial (p_f/e)} (p_f/e^2) \frac{\partial e}{\partial q} + (p_f/e^2) M \frac{\partial e}{\delta q}$$

$$- \frac{\partial s}{\partial e} \frac{\partial e}{\partial q} q - (1 - B) \left[s + \frac{\partial s}{\partial q} q \right] = 0$$

or

$$[n_E p_d X + (n_I + 1) p_d M] \frac{\partial \ln e}{\partial q}$$

$$- \frac{\partial \ln s}{\partial \ln e} \frac{\partial \ln e}{\partial \ln q} s - (1 - B) \left[s + \frac{\partial s}{\partial q} q \right] = 0$$

The first term is the change in imports and exports valued at the domestic dollar price. The last term is the real resource cost of incremental oil imports (excluding the percent recycled immediately and not adding to the balance of payments deficit). The middle term, therefore, is the balance of payments externality, which consists of the elasticity of real dollar oil prices as a function of the exchange rate and the elasticity of the exchange rate as a function of import levels.[28]

From this last equation we obtain

$$\frac{\partial \ln e}{\partial \ln q} = \frac{(1 - B)[s + (\partial s/\partial q)q]q}{n_E p_d X + (n_I + 1) p_d M - (\partial \ln s/\partial \ln e) qs}$$

27. Assuming a fixed dollar price level in the United States, changes in the price of foreign goods must be accompanied by changes in other domestic real prices in order to adjust relative prices and maintain the same price level.

28. We have ignored the second-order effect of partial recycling.

The elasticity of the price of oil with respect to the exchange rate is uncertain. If oil producers are willing to fix the price of oil in dollars or to make purchases only in the United States, possibly later, then this term should be near 0. If oil producers' dollars are converted to other currencies, and producers wish to maintain the purchasing power of their oil, then this elasticity is -1.

In summary, the balance of payments import externality per barrel is

$$t_2 = sn_{se}n_{eq}$$

where

$$n_{se} = \frac{\partial \ln s}{\partial \ln e} = \text{elasticity of oil import price to the exchange rate}$$

$$n_{eq} = \frac{\partial \ln e}{\partial \ln q} = \text{elasticity of exchange rate to oil import level}$$

Price Reduction The most commonly cited source of an oil premium is the power of the U.S., as a large buyer, to influence the world oil price. The monopsony element of the premium varies directly with the import volume.

The direct cost of oil imports purchased by the U.S. is simply the import price times the import volume, or

$$sq$$

Given the sizable share enjoyed by the U.S. in the world oil market, an increase in the volume of import purchases, over the long run, will change this direct cost by the amount

$$s + s'q$$

The first term is just the price, s, which is the private cost. The incremental buyer of imported oil will pay this cost directly and thus internalize one component of the increased oil import bill. But the incremental buyer does not see how its purchase increases the cost for everyone else. The second term reflects this market imperfection and enters the calculation of the economic component of the premium as

$$t_3 = s'q$$

The Security Component

The security component of the premium reflects external costs that stem from sudden, unanticipated, and large changes—in a word, disruptions—in the relative price of oil. For this analysis, disruptions translate into price effects in a fully employed economy. Empirical studies of previous oil price disruptions show that these macroeconomic costs are substantial.[29]

Vulnerability The long-run level of imports defines a reference point for short-run supply and demand curves in an interrupted market.

Following the analysis in Hogan,[30] we incorporate a model of short-run macroeconomic shock that employs a GDP elasticity with respect to sudden increases in the price of oil.

Let

q_l = quantity of oil imports that would be demanded with reduced GDP and no price change
q_s = quantity of oil imports during interruption

We assume that the real GDP during an interruption is

$$\text{GDP} = \text{GDP}_0((\Delta p + p)/p)^{-u}$$

where GDP_0 = the normal GDP at price p
Δp = shock-induced change in domestic oil price
u = elasticity of GDP with respect to oil price

and the unemployment caused by higher oil prices is spread uniformly across the economy. We assume that this shock-induced unemployment will reduce the demand for oil in the same percentage as the reduced GDP, and this will be a principal (expensive) means of adjusting to the oil shortage.[31]

Therefore,

$$q_l = q - q_d u \Delta p/p$$

We assume the interruption lasts for one year. The short-run supply function during an interruption is determined by the size of the interruption, ε, and a short-run response relative to the import price. The short run supply

29. Micheal Bruno and Jeffrey Sachs, "Import Price Shocks and the Slowdown in Economic Growth: The Case of U.K. Manufacturing," *Review of Economic Studies* 49 (5), 1982, pp. 679–706.

30. W. Hogan, "Oil Stockpiling: Help Thy Neighbor," *Energy Journal* 4 (3), July 1983, pp. 49–72.

31. The elasticity captures the net effect on GDP which subsumes the impacts of Okun's law.

of imports is very inelastic; a large change in price produces a small increment in curtailed supply. We further assume that the tariff implied by the pre-interruption price difference, $p - s$, is maintained during the interruption;[32] hence, the linear approximation of the short-run supply curve with slope b is

$$q_s = q - \varepsilon + b\Delta p$$

where ε = ex ante size of the disruption.
b = slope of the short-run import supply curve

The short-run import demand curve for quantity q_r at price w, relative to pre-interruption price $p(q)$ and quantity, q, is assumed to be linear with slope c; that is

$$q_r = q_i - c\Delta p$$

where c = slope (minus) of the short-run oil demand curve.

These short run supply and demand equations yield the shock to oil prices, up to linear approximation, as

$$\Delta p = \varepsilon/[b + c + q_d u/p]$$

With these situations, the market clearing quantity during an interruption is q_u. Hence, the social cost of interruptions is equal to

$$(q_i - q_u)[.5\Delta p + (p - s)] + q_u\Delta p + u\text{GDP}(\Delta p/p).$$

Taking the derivative with respect to the oil import level yields the changes in the social costs as a function of the import level:

$$[(q_i - q_u)(p' - s') - u\text{GDP}(\Delta p)p'/(p^2) + .5(\Delta p(\partial(q_i - q_u)/\partial q]$$

$$+ [(.5(q_i - q_s) + u\text{GDP}/p)\partial(\Delta p/\partial q]$$

The terms in the first set of brackets capture the social cost given a price shock Δp. These costs reflect the vulnerability to economic disruption caused by a given level of imports. The terms in the second set of brackets capture the impact of a possible change in the size of the interruption and the resulting price shock.

32. Ideally the tariff would be removed during a disruption, in order to dampen the short-run macroeconomic response. But this nimble response asks much of government. Leaving the tariff in place tends to underestimate the premium and the benefits of the tariff.

Focusing on the first, the size of the externality depends in part upon the probability of a supply interruption of given size. Hence, the first element of the security component is

$$t_4 = \sum v^j[(q_t^j - q_u^j)(p' - s') - u\text{GDP}\Delta p^j p'/(p^2)$$

$$+ .5(\Delta p^j(\partial(q_t^j - q_u^j)/\partial q)]$$

where v^j = probability of disruption state j

Price Shock Reducing the level of oil demand during normal times is likely to leave excess capacity in the total oil market, capacity that could be brought to market during an oil interruption and lessen the effective size of the supply loss. Adjustments in capacity over time, sharing of benefits under the International Energy Program (IEP) formulas, or the possibility of losing capacity as well as production all mitigate against the efficacy of reducing oil imports as a means of lowering the size (or likelihood) of an oil supply interruption.

With the adjustments described above for dealing with macroeconomic costs of a disruption, this second element of the security component is

$$t_5 = \sum v^j[\{.5(q_t^j - q_s^j) + u\text{GDP}/p\}\partial(\Delta p^j)/\partial q]$$

In order to calculate this element of the premium, we need to provide

$\partial\varepsilon/\partial q$ = the change in interruption size induced by a change in imports

In Hogan[33] the likely range for this value is established as .13 to .48. With proportional IEA sharing of shortages according to demand, and a complete elimination of a barrel of shortage for each barrel or reduced demand, we would have for the United States $\partial\varepsilon/\partial q = 0.33$.[34]

Finally, in calculating several of the derivatives we will need the fact that

$$\partial q_d/\partial q = n_d q_d/(n_d q_d - n_s(q_d - q))$$

where n_s = long-run elasticity of domestic supply.

33. Hogan, 1981.

34. The United States consumed an average of 15.9 mmbd out of a world consumption of 47.2 mmbd between 1980 and 1983. Hence, with proportional sharing of disruptions, each barrel reduction in the short run demand for imports would have a 33 percent impact on the size of the effective disruption.

Hence, the change in the price shock induced by a change in the level of imports is

$$\frac{\partial \Delta p}{\partial q} = \frac{-\varepsilon}{[b + c + q_d u/p]^2}\left[\frac{\partial q_d}{\partial q}(u/p) - q_d(u/p^2)\frac{\partial p}{\partial q}\right] + \frac{\partial \varepsilon}{\partial q}\left[\frac{1}{[b + c + q_d u/p]}\right]$$

Strategic Petroleum Reserve

Oil supply disruptions create substantial costs for the economy. The principal protection from these losses, short of preventing the disruption per se, would be to provide substitute supplies of oil. Every analysis of energy security problems has pointed to the need for a substantial oil reserve.[35]

Whatever the size of the such a reserve, however, the volume of imports will affect the economic cost of a disruption. It follows that a tariff, which would reduce the volume of imports, and a strategic oil reserve, which would substitute for the lost supply, are complementary.

For a given size of the U.S. Strategic Petroleum Reserve, the size of the optimal tariff depends on the use of the SPR during an interruption. If there is a reasonable possibility that a disruption will last for more than one year, then part of the SPR should be used immediately and part should be held for contingencies. Furthermore, given the value of the SPR for later emergencies, part of the disruption should be met from the SPR and part should be met with demand reductions.[36] Our rule of thumb is to meet the disruption up to half the total interruption for or half the size of the SPR. The drawdown from the SPR reduces the effective size of the disruption, ε, and the resulting price increase and economic loss. Therefore, we set

$$\varepsilon = \text{MAX}\{0.5\varepsilon_{\text{ex ante}}, \varepsilon_{\text{ex ante}} - 0.5(\partial\varepsilon/\partial q)(\text{SPR}/365)\}$$

35. For example, T. J. Teisberg, "A Dynamic Programming Model of the U.S. Strategic Petroleum Reserve," *Bell Journal of Economics* 12 (2), Autumn 1981, presented an analysis of the link between a strategic oil supply and a tariff. Although partial substitutes, the optimal result called for both a large reserve and a significant tariff. See also A. Alm and E. Krapels, "Building Buffer Stocks in a Bear Market: Policy Choices for Emergency Reserves," *Discussion Paper Series*, No. H-82-01 (Cambridge, Mass.: Energy and Environmental Policy Center, John F. Kennedy School of Government, Harvard University, 1982); H. P. Chao and S. Peck, "Coordination of OECD Oil Import Policies: A Gaming Approach" (Palo Alto, Calif.: Electric Power Research Institute, September 1980); National Petroleum Council, *Emergency Preparedness for Interruption of Petroleum Imports into the United States* (Washington, D.C., April 1981).

36. See Teisberg, 1981; Hogan, 1983; and Horwich and Weimer, 1984.

where $\varepsilon_{\text{ex ante}}$ is the interruption size expected without the use of the SPR. The term $\partial\varepsilon/\partial q$ enters because the use of the SPR will benefit everyone in the world market. Hence, the drawdown affects the interruption only in proportion to the assumed derivative of the interruption size for each barrel change in the size of import demand.

The Total Premium

The size of the total premium is not the simple sum of its individual components. The combined optimal premium can be characterized by maximizing an appropriate objective function over the total level of oil imports.[37] This objective function combines the annualized benefits of oil use, cost of inflation and balance of payments adjustments, payment for oil imports, and the expected loss during oil interruptions. Using linear approximations for several derivatives, the objective function is:

$$\text{OBJ} = \int_0^q [p(x)\partial x] - (t_1 + t_2)q - sq$$

$$- \sum v^j[(q_i^j - q_u^j)(.5\Delta p^j + (p - s)) + q_u^j \Delta p^j + u\text{GDP}\Delta p^j/p].$$

The solution to the optimization of OBJ over q yields

$$W(p - s) = t_1 + t_2 + t_3 + t_4 + t_5$$

where W is a scaling factor that adjusts for losses in tariff payments during an interruption:

$$W = 1 - \sum v^j[\partial(q_i^j - q_s^j)/\partial q]$$

Therefore, the total tariff is $(p - s)$, and we refer to the five elements of the economic and security components of the premium as

$$T_k = t_k/W, \qquad k = 1, 2, \ldots, 5$$

with $t = (p - s) = \Sigma\, T_k$.

These equations can be solved numerically to identify the elements of the optimal oil import tariff. An estimate of the combined premium allows a further estimate of the aggregate cost of oil market imperfections. Since the premium measures the difference between price and social cost, the import supply curve plus the premium captures the full social cost of oil imports. The demand curve measures the corresponding social value of the same imports.

37. See Hogan, 1981.

At the market level of imports—with no tariff—the social cost is above the social value. At the optimal level of imports—by definition at the optimal tariff—marginal social cost just equals marginal social value. Hence the excess of cost over value, as imports increase from the optimal to the market level, is cost of the oil import externalities.

Let q^* be the optimal level of imports and q^0 be the market level. Let T^0 be the premium at the market level. Then the aggregate net cost of oil import market imperfections, or the saving engendered by imposing the optimal tariff, is given by

$$C = T^0(q^0 - q^*)/2.$$

Calculation of C requires only that we estimate the premium and import volume at the market level, where $p = s$, and at the optimum import level.

APPENDIX B: BASE CASE PARAMETERS

The base case includes the nominal assumptions for each of the inputs specified in the development of the model. The base case assumption include:

U = 30%, unaccommodated portion of inflation

r = 3%/yr, oil price increase in real terms. The rate of real price increase between 1970 and 1985 averaged 6.9%/yr. At 3%/yr, the real price would double in 24 years

r' = 0.1%/mmbd, derivative of oil inflation rate with respect to changes in the level of imports. According to the usual theory of depletable resources, r is the same as the nominal interest rate, independent of the level of oil production or imports. Even under the opposite extreme case of production targets, r is independent of oil imports. For our sensitivity analysis, we assume that imports have a small effect on the rate of oil price change, implying a small, positive value for r'. For our base case assumptions, we take $r = 3\%$ and $r' = 0.1\%$

ϕ = 2, Phillips curve derivative ratio of excess unemployment to inflation, as described in Nordhaus and Samuelson, 1985

β = 2, Okun's law, ratio of lost output to unemployment, as described in Nordhaus and Samuelson, 1985

p = \$27/bbl, base domestic oil price (High Price Estimate), \$15/bbl. (Low Price Estimate)

s = \$27/bbl, base oil import price (High Price Estimate), \$15/bbl. (Low Price Estimate)

s' = \$0.50/bbl/mmbd, derivative of normal oil import supply curve; at \$25/bbl and 50 mmbd, the average slope of the world supply curve is \$0.50/bbl. At the margin, with a cartel, the slope could be larger than price is far from the marginal cost of production

q_d = 16 mmbd, base domestic oil demand, approximately the level in 1985

q_n = 5.4 mmbd, domestic demand for oil substitutes, the level in 1985

q_s = 10 mmbd, base domestic oil production, the level in 1985

n_d = -0.5, long-run elasticity of U.S. demand for oil. Estimates drawn from the Department of Energy and an independent analysis of the data imply a long run elasticity of -0.9 with respect to the crude oil price.[38] The lower value used here is intended to capture an approximation of the decade long horizon reasonable for design fo tariff policy

n_s = 0.5, long-run domestic oil supply elasticity. The Department of Energy's oil market model uses an elasticity of 0.9.[39] Again, the smaller value used here reflects the average over a decade

n_{se} = $-1.$, elasticity of oil import price to the exchange rate

B = 25%, fraction of marginal oil revenues recycled to the United States

n_x = $-2.$, elasticity of demand for exports

n_m = -1.5, elasticity of demand for imports other than oil. This figure and the elasticity for exports are drawn from the surveys reported in Corden, Caves and Evans[40]

X = \$227 billion, value of exports, the value in 1985

M = \$285 billion, value of imports other than oil, the value in 1985

GDP_0 = \$4525 billion, the normal GDP, the value in 1985

u = 0.05, elasticity (minus) of GDP with respect to oil price shock. Several studies have used similar estimates drawn from the analysis of past supply interruptions and simulation with more detailed macroeconomic models[41]

$\partial\varepsilon/\partial q$ = 0.36, the change in interruption size induced by a change in long-run import demand, based on the evaluation of the U.S. share of the world market, see Hogan[42]

38. Hogan and Leiby, 1985.

39. Hogan and Leiby, 1985.

40. W. M. Corden, *Trade Policy and Economic Welfare* (New York: Oxford University Press, 1974), pp. 183–184; R. E. Caves, *World Trade and Payments* (Boston Ma: Little, Brown and Co, 1981), p. 283; M. K. Evans, *Macroeconomic Activity* (New York: Harper and Row, 1969), pp. 227–228.

41. See Murphy *et al.*, 1986; Rowen and Weyant, 1986; W. Hogan, "The 200 Billion Surprise: *Energy Security* and the Oil Tariff," *Discussion Paper Series*, No. E-87-07 (Cambridge, Mass.: Energy and Environmental Policy Center, John F. Kennedy School of Government, Harvard University, 1987).

42. Hogan, 1981.

A_d = 0.1 adjustment rate for domestic oil demand[43]
A_s = 0.1 adjustment rate for domestic oil supply[44]
$n_{i:\text{short}}$ = 0.1 short-run imported oil supply elasticity
SPR_Size = 500 million barrels, the size in 1986

The base case also specifies the probability distribution for oil supply interruptions over the possible interruption sizes, ε. For purposes of the sensitivity analysis, we consider four different views of the world about the probability of one-year long interruptions of 1 mmbd, 3 mmbd, and 6 mmbd, for the United States. Table A1 characterizes the decade probabilities of one or more such interruptions, for each at these world views.

Table A1. Decade Probabilities: One Year Interruptions[45]

World View	*1 mmbd*	*3 mmbd*	*6 mmbd*
W1	.0	.0	.0
W1	.50	.10	.05
W2	.75	.30	.05
W3	.95	.50	.20

The nominal assumptions adopt world view two (W2).

43. Hogan and Leiby, 1985.
44. Hogan and Leiby, 1985.
45. Values for ε *ex ante*, i.e., before use of the Strategic Petroleum Reserve or any other supply and demand adjustments.

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